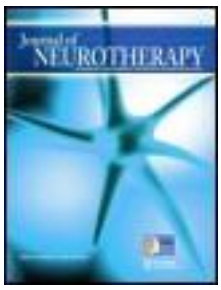

Journal of Neurotherapy: Investigations in Neuromodulation, Neurofeedback and Applied Neuroscience

News from Other Journals and Websites

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Published online: 08 Sep 2008.

To cite this article: David A. Kaiser PhD (2005) NEWS FROM OTHER JOURNALS AND WEBSITES, Journal of Neurotherapy: Investigations in Neuromodulation, Neurofeedback and Applied Neuroscience, 9:1, 53-60, DOI: 10.1300/J184v09n01_05

To link to this article: http://dx.doi.org/10.1300/J184v09n01_05

NEWS FROM OTHER JOURNALS AND WEBSITES

David A. Kaiser, PhD, Editor

A mixture of EEG, neuroimaging, and interesting clinical papers are included in this edition of NFOJW. 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

Blunden, S., Lushington, K., Lorenzen, B., Ooi, T., Fung, F., & Kennedy, D. (2004). Are sleep problems under-recognized in general practice? *Archives of Disease in Childhood, 89*, 708-712.

Of 79 children with clinical sleep problems, only 14% discussed sleep with their general practitioner within the previous 12 months.

Buchel, C. (2004). Perspectives on the estimation of effective connectivity from neuroimaging data. *Neuroinformatics, 2*, 169-174.

Discusses model in use with event-related fMRI to estimate connectivity across the brain.

Charach, A., Ickowicz, A., & Schachar, R. (2004). Stimulant treatment over five years: Adherence, effectiveness, and adverse effects. *Journal of the American Academy of Child and Adolescent Psychiatry, 43*, 559-567.

Psychostimulants improve ADHD symptoms but adverse effects persist.

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Digital Object Identifier: 10.1300/J184v09n01_05

Chatterjee, A. (2004). The neuropsychology of visual artistic production. *Neuropsychologia, 42*, 1568-1583.

Reviews artistic production after achromatopsia, neglect, visual agnosia, aphasia, epilepsy, migraine, dementia or autism.

Cheng, T. L., Brenner, R. A., Wright, J. L., Sachs, H. C., Moyer, P., & Rao, M. R. (2004). Children's violent television viewing: Are parents monitoring? *Pediatrics, 114*, 94-99.

Seventy-five percent of families surveyed reported that their youngest child watched television 2.6 hours a day. Four-fifths limited viewing of sexual content.

Courchesne, E. (2004). Brain development in autism: Early overgrowth followed by premature arrest of growth. *Mental Retardation and Developmental Disabilities Research Reviews, 10*, 106-111.

Abnormal brain overgrowth occurs during the first 2 years of life in children with autism followed by abnormally slow or arrested growth.

de Bruinn, E. A., Bijl, S., Stam, C. J., Bocker, K. B., Kenemans, J. L., & Verbaten, M. N. (2004). Abnormal EEG synchronisation in heavily drinking students. *Clinical Neurophysiology, 115*, 2048-2055.

Heavily drinking students had more synchronisation in theta and gamma bands during eyes closed, both with and without a task, interpreted as changes in hippocampal-neocortical connectivity.

de Lange, F. P., Kalkman, J. S., Bleijenberg, G., Hagoort, P., van der Werf, S. P., van der Meer, J. W., et al. (2004). Neural correlates of the chronic fatigue syndrome: An fMRI study. *Brain, 127*, 1948-1957.

CFS may be associated with dysfunctional motor planning.

Devinsky, O. (2004). Therapy for neurobehavioral disorders in epilepsy. *Epilepsia, 45 Suppl 2*, 34-40.

Cognitive and behavioral disorders associated with epilepsy may produce the greatest impairments in quality of life, often overshadowing seizures.

Ehlers, C. L., Phillips, E., Wall, T. L., Wilhelmsen, K., & Schuckit, M. A. (2004). EEG alpha and level of response to alcohol in Hispanic and non-Hispanic-American young adults with a family history of alcoholism. *Journal of Studies on Alcohol, 65*, 301-308.

Alcohol was found to produce significant effects on EEG power in the slow alpha frequencies. Hispanic participants had decreases in fast alpha activity whereas non-Hispanics had increases.

Esch, T., & Stefano, G. B. (2004). The neurobiology of pleasure, reward processes, addiction and their health implications. *Neuro Endocrinology Letters, 25*, 235-251.

The authors argue that social contacts facilitate the positive effects exerted by pleasurable experiences whereas stimulants deteriorate flexibility and normal control of behavior.

Foucher, J. R,, Otzenberger, H., & Gounot, D. (2004). Where arousal meets attention: A simultaneous fMRI and EEG recording study. *Neuroimage, 22*, 688-697.

Arousal was correlated with right dorsal-lateral prefrontal and superior parietal cortices, closely overlapping regions involved in the maintenance of attention.

Frank, G. K., Bailer, U. F., Henry, S., Wagner, A., & Kaye, W. H. (2004). Neuroimaging studies in eating disorders. *CNS Spectrums, 9*, 539-548.

Cingulate, frontal, temporal, and parietal regions are implicated in anorexia nervosa.

Gomez, C. M., Vaquero, E., Lopez-Mendoza, D., Gonzalez-Rosa, J., & Vazquez-Marrufo, M. (2004). Reduction of EEG power during expectancy periods in humans. *Acta Neurobiology Experimental (Warsaw), 64*, 143-151.

All bands decreased in power during expectancy periods of a cognitive task.

Hall, W., Carter, L., & Morley, K. I. (2004). Neuroscience research on the addictions: A prospectus for future ethical and policy analysis. *Addictive Behaviors*, *29*, 1481-1495.

Advances in neuroimaging will eventually allow pre-onset addiction and other frightening invasions of privacy.

Hrdlicka, M., Komarek, V., Propper, L., Kulisek, R., Zumrova, A., Faladova, L., et al. (2004). Not EEG abnormalities but epilepsy is associated with autistic regression and mental functioning in childhood autism. *European Child and Adolescent Psychiatry, 13*, 209-213.

Epilepsy was found in 22 of a group of 77 autistic children (61 boys, 16 girls). Autistic regression was more frequent in patients with epilepsy than in non-epileptic patients.

Jones, N. A., Field, T., Davalos, M., & Hart, S. (2004). Greater right frontal EEG asymmetry and nonemphathic behavior are observed in children prenatally exposed to cocaine. *International Journal of Neuroscience, 114*, 459-480.

Cocaine-exposed children had greater right frontal EEG asymmetry, showed fewer empathic reactions to crying infants, and were less proficient in cooperative tasks.

Jonsson, C. A., Horneman, G., & Emanuelson, I. (2004). Neuropsychological progress during 14 years after severe traumatic brain injury in childhood and adolescence. *Brain Injury, 18*, 921-934.

Eight severe brain-injured teens were assessed neuropsychologically 1, 7 and 14 years after injury. Performance of verbal IQ declined over assessments. Verbal learning was most impaired.

Just, M. A., Cherkassky, V. L., Keller, T. A., & Minshew, N. J. (2004). Cortical activation and synchronization during sentence comprehension in high-functioning autism: Evidence of underconnectivity. *Brain, 127*, 1811-1821.

Autistics produced more activation than controls in Wernicke's area and less in Broca's. Functional connectivity between areas was also lower for the autistic group.

Kang, D. H., Kim, J. J., Choi, J. S., Kim, Y. I., Kim, C. W., Youn, T., et al.(2004). Volumetric investigation of the frontal-subcortical circuitry in patients with obsessive-compulsive disorder. *Journal of Neuropsychiatry Clinical Neuroscience 16*, 342-349.

Left orbitofrontal volumes are smaller in OCD patients and size correlated negatively with symptom severity.

Karrasch, M., Laine, M., Rapinoja, P., & Krause, C. M. (2004). Effects of normal aging on event-related desynchronization/synchronization during a memory task in humans. *Neuroscience Letters, 366*, 18-23.

Normal aging affects oscillatory theta, alpha and beta responses during retrieval from working memory.

Kinoshita, M., Ikeda, A., Matsumoto, R., Begum, T., Usui, K., Yamamoto, J., et al. (2004). Electric stimulation on human cortex suppresses fast cortical activity and epileptic spikes. *Epilepsia, 45*, 787-791.

A patient with subdural electrodes had 1 to 7 mA stimulation. Interictal spikes were reduced after electric cortical stimulation of both high (50 Hz) and low (.9 Hz) stimulation.

Lew, H. L., Lee, E. H., Pan, S. S., & Date, E. S. (2004). Electrophysiologic abnormalities of auditory and visual information processing in patients with traumatic brain injury. *American Journal of Physical Medicine and Rehabilitation, 83*, 428-433.

Brain injured patients exhibit diminished amplitudes and prolonged latencies in P300 responses, indicating impaired organization and categorization of incoming sensory information, as well as prolonged reaction times.

Li, X., Nahas, Z., Anderson, B., Kozel, F. A., & George, M. S. (2004). Can left prefrontal rTMS be used as a maintenance treatment for bipolar depression? *Depression and Anxiety, 20*, 98-100.

One full year of weekly TMS may be used as an adjunctive maintenance treatment for some patients with bipolar depression.

Martin, L. E., & Potts, G. F. (2004). Reward sensitivity in impulsivity. *Neuroreport, 15*, 1519-1522.

Impulsive people choose immediate small over delayed larger rewards, suggesting more than normal sensitivity to reward amounts.

Martineau, J., Schmitz, C., Assaiante, C., Blanc, R., & Barthelemy, C. (2004). Impairment of a cortical event-related desynchronisation during a bimanual load-lifting task in children with autistic disorder. *Neuroscience Letters, 367*, 298-303.

A central deficit of anticipation in both postural and motor control in children with autism was found.

Metzger, L. J., Paige, S. R., Carson, M. A., Lasko, N. B., Paulus, L. A., Pitman, R. K., et al. (2004). PTSD arousal and depression symptoms associated with increased right-sided parietal EEG asymmetry. *Journal of Abnormal Psychology, 113*, 324-329.

Results support connection between anxiety and right-sided posterior activation, an anxious arousal subtype.

Michel, C. M., Lantz, G., Spinelli, L., De Peralta, R. G., Landis, T., & Seeck, M. (2004). 128-channel EEG source imaging in epilepsy: Clinical

yield and localization precision. *Journal of Clinical Neurophysiology, 21*, 71-83.

Evaluated feasibility, clinical yield, and localization precision of high-resolution EEG source imaging of interictal epileptic activity. Foci was localized in 93% of patients, 79% exactly.

Nyden, A., Carlsson, M., Carlsson, A., & Gillberg, C. (2004). Interhemispheric transfer in high-functioning children and adolescents with autism spectrum disorders: A controlled pilot study. *Developmental Medicine and Child Neurology, 46*, 448-454.

Poor interhemispheric transfer may be involved in autism.

Pujol, J., Soriano-Mas, C., Alonso, P., Cardoner, N., Menchon, J. M, Deus, J., et al. (2004). Mapping structural brain alterations in obsessive-compulsive disorder. *Archives of General Psychiatry, 61*, 720-730.

OCD patients showed reduced gray matter in medial frontal and orbitofrontal cortex and other select areas.

Reeves, R. R., Struve, F. A., Brannon, G. E., & Pinkofsky, H. B. (2004). Quantitative EEG findings of a temporal lobe abnormality not detected by magnetic resonance or SPECT imaging in a patient with dementia. *Clinical EEG Neuroscience, 35*, 104-107.

A focal CNS lesion missed by MRI and SPECT was detected by EEG and positron emission tomography. Quantitative EEG remains a valuable tool for the demonstration of the degree of dysfunctional changes associated with a cerebral lesion.

Ryan, M., & Gevirtz, R. (2004). Biofeedback-based psychophysiological treatment in a primary care setting: An initial feasibility study. *Applied Psychophysiology and Biofeedback, 29*, 79-93.

Examined feasibility of biofeedback for certain conditions such as chronic fatigue syndrome (CFS).

Schumann, C. M., Hamstra, J., Goodlin-Jones, B. L., Lotspeich, L. J., Kwon, H., Buonocore, M. H., et al. (2004). The amygdala is enlarged in children but not adolescents with autism; the hippocampus is enlarged at all ages. *Journal of Neuroscience, 24*, 6392-6401.

Children with autism had larger amygdala volumes than controls, but these differences were negligible as teenagers. Hippocampal volumes were larger throughout, more so on the right side.

Short, E. J., Manos, M. J., Findling, R. L., & Schubel, E. A. (2004). A prospective study of stimulant response in preschool children: Insights from ROC analyses. *Journal of American Academy of Child and Adolescent Psychiatry, 43*, 251-259.

Stimulant meds improved most ADHD preschoolers' behaviors and was tolerated well at the proper dosage.

Slawecki, C. J., Thorsell, A., & Ehlers, C. L. (2004). Long-term neurobehavioral effects of alcohol or nicotine exposure in adolescent animal models. *Annals of the New York Academy of Sciences, 1021*, 448-452.

Teenagers are uniquely susceptible to chronic alcohol and nicotine exposure effects, as shown by EEG and ERP results.

Taylor, W. D., MacFall, J. R., Payne, M. E., McQuoid, D. R., Provenzale, J. M., Steffens, D. C., et al. (2004). Late-life depression and microstructural abnormalities in dorsolateral prefrontal cortex white matter. *American Journal of Psychiatry, 161*, 1293-1296.

White matter of the right superior frontal gyrus are associated with late-life depression.

Tomarken, A. J., Dichter, G. S., Garber, J., & Simien, C. (2004). Resting frontal brain activity: Linkages to maternal depression and socio-economic status among adolescents. *Biological Psychology, 67*, 77-102.

Baseline EEG in high risk adolescents (mothers had history of depression) showed relative left frontal hypo-activity. Socio-economic status also predicted alpha asymmetry.

Verdejo-Garcia, A., Lopez-Torrecillas, F., Gimenez, C. O., & Perez-Garcia, M. (2004). Clinical implications and methodological challenges in the study of the neuropsychological correlates of cannabis, stimulant, and opioid abuse. *Neuropsychology Review, 14*, 1-41.

Reviews executive functioning impairment due to abuse and the mediating role of neuropsychological status on treatment outcomes.

Yamada, K., Isotani, T., Irisawa, S., Yoshimura, M., Tajika, A., Yagyu, T., et al. (2004). EEG global field power spectrum changes after a single dose of atypical antipsychotics in healthy volunteers. *Brain Topography, 16*, 281-285.

Increase in GFP of delta after risperidone was more prominent compared to haloperidol. Olanzapine increased delta in posterior sites indicating a frontal shift of brain activity.

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Translate into or out of 11 different languages including Japanese, Russian, and Chinese

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