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News from Other Journals and Websites

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NEWS FROM OTHER JOURNALS AND WEBSITES

David A. Kaiser, PhD, Editor

Many EEG papers appear this quarter. Chabot and colleagues review recent EEG papers and their promising use in clinical evaluation. Authors are encouraged to submit recent reprints or preprints for this section and anyone can submit reviews or recommend websites. Contact David Kaiser at dakaiser@skiltopo.com

RECENT MUST-READ PAPERS

Chabot, R. J., di Michele, F., Prichep, L., & John, E. R. (2001). The clinical role of computerized EEG in the evaluation and treatment of learning and attention disorders in children and adolescents. *Journal of Neuropsychiatry and Clinical Neuroscience*, *13*, 171-186.

Chabot and colleagues review clinical and quantitative EEG studies of children with attention deficit and learning disorders. Studies and findings are summarized in two large tables. EEG and QEEG abnormalities are common in these children, especially those with attention disorders. QEEG may distinguish subtypes of attention deficit disorder, including ones not readily differentiated by behavior. Also, EEG may address theoretical issues such as whether certain disorders reflect deviant developmental history or merely maturational lag on the part of the child.

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EEG AND NEUROIMAGING

Allen, J. J., Harmon-Jones, E., & Cavender, J. H. (2001). Manipulation of frontal EEG asymmetry through biofeedback alters self-reported emotional responses and facial EMG. *Psychophysiology*, *38*, 685-693.

Self-reported affect and facial muscle activity in response to emotional films were influenced by the direction of frontal alpha biofeedback.

Bartzokis, G., Beckson, M., Lu, P. H., Nuechterlein, K. H., Edwards, N., & Mintz, J. (2001). Age-related changes in frontal and temporal lobe volumes in men: A magnetic resonance imaging study. *Archives of General Psychiatry*, 58, 461-465.

The adult brain continues to develop until the late 40s. White matter volume increases until age 44 for the frontal lobes and age 47 for the temporal lobes; then they decline.

Baumann, B., & Bogerts, B. (2001). Neuroanatomical studies on bipolar disorder. *British Journal of Psychiatry*, *178*, S142-147.

Subtle structural abnormalities in the brain, notably subcortical structures, may contribute to the pathogenesis of mood disorders.

Clarke, A. R., Barry, R. J., McCarthy, R., & Selikowitz, M. (2001). Age and sex effects in the EEG: Development of the normal child. *Clinical Neurophysiology*, *112*, 806-814.

Developmental reduction in slow wave activity is readily observed in children's QEEG, though the authors concluded that females showed a developmental lag in the EEG compared with males (this seems unlikely).

Clarke, A. R., Barry, R. J., McCarthy, R., & Selikowitz, M. (2001). Age and sex effects in the EEG: Differences in two subtypes of attention-deficit/hyperactivity disorder. *Clinical Neurophysiology*, *112*, 815-826.

Relative alpha, theta/alpha and theta/beta ratios during eyes closed differentiated ADHD subtypes and controls. Authors conclude hyper-active/impulsive component matures with age but inattentive component remains stable.

Cook, D. B., Lange, G., DeLuca, J., & Natelson, B. H. (2001). Relationship of brain MRI abnormalities and physical functional status in

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chronic fatigue syndrome. *International Journal of Neuroscience*, 107, 1-6.

Presence of brain abnormalities in CFS are related to subjective reports of physical function.

Critchley, H. D., Melmed, R. N., Featherstone, E., Mathias, C. J., & Dolan, R. J. (2001). Brain activity during biofeedback relaxation: A functional neuroimaging investigation. *Brain*, *124*, 1003-1012.

Relaxation was associated with increases in left anterior cingulate and globus pallidus activity.

De Bellis, M. D., Keshavan, M. S., Beers, S. R., Hall, J., Frustaci, K., Masalehdan, A., Noll, J., & Boring, A. M. (2001). Sex differences in brain maturation during childhood and adolescence. *Cerebral Cortex*, *11*, 552-557.

In a cross-sectional study, males have age-related gray matter decreases and white matter volume and corpus callosal area increases compared with females.

Iwata, K., Nakao, M., Yamamoto, M., & Kimura, M. (2001). Quantitative characteristics of alpha and theta EEG activities during sensory deprivation. *Psychiatry and Clinical Neurosciences*, *55*, 191-192.

Theta and alpha EEG occurs together during sensory deprivations, with more theta activity than alpha.

Mueller, H. H., Donaldson, C. C., Nelson, D. V., & Layman, M. (2001). Treatment of fibromyalgia incorporating EEG-driven stimulation: A clinical outcomes study. *Journal of Clinical Psychology*, *57*, 933-952.

EEG-driven stimulation appeared to be the prime initiator of therapeutic efficacy for fibromyalgia.

Rainero, I., Amanzio, M., Vighetti, S., Bergamasco, B., Pinessi, L., & Benedetti, F. (2001). Quantitative EEG responses to ischaemic arm stress in migraine. *Cephalalgia*, *21*, 224-229.

In controls, only noxious stress decreases alpha power but in migraine patients mild stress is sufficient to decrease alpha power, confirming that migraine is characterized by a state of altered neuronal excitability. Rapoport, J. L., Castellanos, F. X., Gogate, N., Janson, K., Kohler, S., & Nelson, P. (2001). Imaging normal and abnormal brain development: New perspectives for child psychiatry. *Australian and New Zealand Journal of Psychiatry*, *35*, 272-281.

Reliable, diagnostically specific patterns of brain abnormality exist for ADHD and childhood onset schizophrenia (COS).

Schoenberger, N. E., Shif, S. C., Esty, M. L., Ochs, L., & Matheis, R. J. (2001). Flexyx neurotherapy system in the treatment of traumatic brain injury: An initial evaluation. *Journal of Head Trauma Rehabilita-tion*, *16*, 260-274.

Using a wait-list control group, neurotherapy was evaluated in 12 TBI patients. Self-reports of depression, fatigue, and other problematic symptoms, as well as for some measures of cognitive functioning improved after therapy.

MENTAL HEALTH AND NEUROLOGICAL DISORDERS

Bell, D. S., Jordan, K., & Robinson, M. (2001). Thirteen-year follow-up of children and adolescents with chronic fatigue syndrome. *Pediatrics*, *107*, 994-998.

Chronic fatigue syndrome in children occasionally results in persistent somatic symptoms and disability. Amount of school missed correlated with illness severity and perceived social impact of the illness.

Boake, C., Millis, S. R., High, W. M., Jr., Delmonico, R. L., Kreutzer, J. S., Rosenthal, M., Sherer, M., & Ivanhoe, C. B. (2001). Using early neuropsychologic testing to predict long-term productivity outcome from traumatic brain injury. *Archives of Physical Medicine and Rehabilitation*, 82, 761-768.

Early neuropsychologic testing, especially comprehensive evaluations, helps predict long-term productivity. Normal range scores on 10 of the 15 neuropsychologic tests predicted productivity at follow-up.

Borkowska, A., & Rybakowski, J. K. (2001). Neuropsychological frontal lobe tests indicate that bipolar depressed patients are more impaired than unipolar. *Bipolar Disorders*, *3*, 88-94.

Compared to unipolar patients, bipolar patients performed poorly in the non-verbal part of WAIS-R, in the Stroop test, in the verbal fluency

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test and in the Wisconsin Card Sorting Test, altogether indicating frontal lobe dysfunction.

Enns, M. W., Swenson, J. R., McIntyre, R. S., Swinson, R. P., & Kennedy, S. H. (2001). Clinical guidelines for the treatment of depressive disorders. VII. Comorbidity. *Canadian Journal of Psychiatry*, 46, 77S-90S.

Depressive comorbidity has implications for assessment, management, and outcome in many disorders including anxiety, substance use, and eating disorders, as well as schizophrenia, ADHD, and dementia.

Gilman, S. E., & Abraham, H. D. (2001). A longitudinal study of the order of onset of alcohol dependence and major depression. *Drug and Alcohol Dependence*, 63, 277-286.

Alcohol dependence and major depression pose a significant risk for the development of the other disorder.

Hutchinson, E., Pearson, D., Fitzgerald, C., Bateman, B., Gant, C., Grundy, J., Stevenson, J., Warner, J., Dean, T., Matthews, S., Arshad, H., & Rowlandson, P. (2001). Can parents accurately perceive hyperactivity in their child? *Child: Care, Health and Development*, *27*, 241-250.

Parents perceived hyperactivity in their children accurately only half the time for hyperactive children but 89% of the time for non-hyperactive children.

Kaufman, J., Martin, A., King, R. A., & Charney, D. (2001). Are child-, adolescent-, and adult-onset depression one and the same disorder? *Biological Psychiatry*, *49*, 980-1001.

Children differ from depressed adults on basic biological correlates of depression, possibly due to developmental factors, stage of illness, and heterogeneity in clinical outcome.

Kreutzer, J. S., Seel, R. T., & Gourley, E. (2001). The prevalence and symptom rates of depression after traumatic brain injury: A comprehensive examination. *Brain Injury*, *15*, 563-576.

Nearly half of TBI patients (42%) exhibit signs of major depressive disorder, notably fatigue, frustration, and poor concentration.

La Vaque, T. J., & Rossiter, T. (2001). The ethical use of placebo controls in clinical research: The Declaration of Helsinki. *Applied Psychophysiology and Biofeedback*, 26, 23-37.

Research involving EEG biofeedback therapy highlights ethical concerns over the requirements of some agencies for placebo-controlled research. When a known, effective treatment exists, placebo control is inappropriate.

Lynskey, M. T., & Hall, W. (2001). Attention deficit hyperactivity disorder and substance use disorders: Is there a causal link? *Addiction*, *96*, 815-822.

ADHD is not associated with an increased risk of substance use problems in males. Only limited evidence exists on the association between ADHD and substance use disorders in females.

Magnusson, P., & Saemundsen, E. (2001). Prevalence of autism in Iceland. *Journal of Autism and Developmental Disorders*, *31*, 153-163.

In line with other Western countries, autism has more than doubled in Iceland from 3.8 per 10,000 from 1974-83 to 8.6 from 1984-1993.

McKenzie, N., Marks, I., & Liness, S. (2001). Family and past history of mental illness as predisposing factors in post-traumatic stress disorder. *Psychotherapy and Psychosomatics*, *70*, 163-165.

PTSD patients have less family history of anxiety disorder and less personal history of mental illness prior to the trauma episode.

Sargent, J. D. (2001). Web-based assistance for physicians caring for children with ADHD. *Effective Clinical Practice*, *4*, 127-135.

Proposes online information exchange between parents, teachers, and health care professionals in order to improve behavioral outcomes for children with ADHD.

Tsopelas, N. D., Saintfort, R., & Fricchione, G. L. (2001). The relationship of psychiatric illnesses and seizures. *Current Psychiatry Reports*, *3*, 235-342L.

Depression is the most prevalent seizure comorbidity. Anxiety and panic attacks may resemble complex partial seizures, and their diagnosis and treatment may be confusing and should be re-examined.

Varley, C. K., Vincent, J., Varley, P., & Calderon, R. (2001). Emergence of tics in children with attention deficit hyperactivity disorder treated with stimulant medications. *Comprehensive Psychiatry*, *42*, 228-233.

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About eight percent of 555 ADHD subjects treated with stimulants developed tics (8.3% treated with methylphenidate, 6.3% with dextroamphetamine, and 7.7% with pemoline). Subjects who developed tics were generally younger.

ONLINE RESOURCES

Past issues focused on clinical resources; now here are some general resources.

Efax-www.efax.com

Efax, an online service, allows anyone and everyone to have their own incoming fax line. Faxes are converted to a format retrievable through email. Local numbers are available.

Web-based Email-mail.yahoo.com, www.hotmail.com

Free web-based email can come in handy, especially while you travel. Access email from any PC connected to the net.

Merriam-Webster Online-www.m-w.com

Access the collegiate dictionary or thesaurus online.

Public Medline–*www4.ncbi.nlm.nih.gov/entrez/query.fcgi? db=PubMed* Search for medical, biological and psychology citations. Abstracts for most.

Quick Homepage-www.skiltopo.com/quick.htm

Customized homepage for SNR that can be saved locally and loads instantly, unlike a browser's pre-set homepage that requires downloading each time.

To make Quick Homepage your own, follow these instructions:

Go to URL www.skiltopo.com/quick.htm. When page appears, select File; select Save As; and save to folder on hard drive. Now open saved web page: select File; select Open; select Browse (or Choose File) and navigate to QUICK.HTM and click Open.

To set as homepage, for Microsoft IE, select View; select Internet Options; click Use Current; click OK. For Netscape Navigator, select Edit; select Preferences; select Navigator; click Use Current Page; click OK.

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About Time-www.arachnoid.com/abouttime

Freeware program that sets local PC clock to clock at National Institute of Standards and Technology (NIST).

Find++-www.bytewysesoft.com

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Shareware program that can search entire hard drive for text string. Find that elusive file that contains a phone number, old correspondence, etc.