

Nutrition & Mental Health

The Quarterly Newsletter of the International Schizophrenia Foundation



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REPORT FROM THE 35TH NUTRITIONAL MEDICINE TODAY CONFERENCE

The 2006 Nutritional Medicine Today conference gathered in Vancouver this spring with an exciting array of speakers on a wide variety of topics in mental and physical health. Reported here are some of this year's orthomolecular mental health highlights.

William Walsh, Ph.D.

Dr. Walsh is the founder of the Health Research Institute in Warrenville, Illinois, one of the most innovative orthomolecular laboratory/clinics in North America. He presented this year's Carl C. Pfeiffer Memorial Lecture. Having studied over 20,000 patients, his lab has accumulated the world's largest biochemical database correlating millions of profiles of mental and behavioural disorders.

Most patients' mental illnesses appear to originate in four specific biochemical patterns: over-methylation, under-methylation, pyrrole and metallothionein disorders.

Dr. Walsh detailed some of the chemical findings of patients with depression, panic and anxiety disorders and schizophrenia. Schizophrenia often produces profiles of low histamine and high copper (histapenia); high histamine and

under-methylation (histadelia); B₆ and zinc deficiencies (pyrolluria) and cerebral allergies—of which milk and gluten are most common. The Institute's method is to take medical histories to gauge symptom onset and severity, conduct bio-



Margot Kidder speaking at the "Mental Health Regained" Evening

chemical assays and prescribe correcting nutrients for patients. Custom formulations are preferred over broad supplementation, because the database often points to overloads (i.e. copper, folic acid, iron, methyl groups and toxins) rather than the assumed deficiencies which often cause mental illness. Therefore, targeted supplementation addresses the true biochemical problems patients face. (More information can be found at www.hriptc.org)

Joan Mathews Larson, Ph.D.

It was the failure of traditional psychiatric treatment for her son, Rob, which started Dr. Mathews Larson on her 30-year journey. Convinced the cause of her son's emotional problems and even-

tual suicide was a biochemical imbalance, Larson completed her doctorate in nutrition and started Health Recovery Center in Minneapolis, Minnesota, (www.healthrecovery.net) which developed a treatment method to address what she perceived as the root of addiction. Her center has now successfully treated thousands of addicts with her orthomolecular approach.

Mathews Larson's research led her to theorize that alcohol and drug addictions serve to compensate for chemical imbalances perceived by the patient as intolerable anxiety and depression. She discovered that one half of depressed patients were pyrroluric and suffering from a prostaglandin E1 depletion in the brain. Alcohol may act as a crude prostaglandin enhancer which may consign the depression or anxiety sufferer to a life of addiction; but treating the underlying dependency with primrose oil, vitamin B₆ and zinc corrects the underlying disorder.

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NMT Conference Report (cont'd)

Heavy metal toxicity and cerebral allergies are also found to be strongly present in addictions. The center treats these with chelation and five-day allergy fasts. In her years of studying addictions, Mathews Larson saw the correctness of Linus Pauling's observation that the mind is merely a manifestation of the brain's structure and the optimum environment of the mind begins with substances natural to it.

Bradford Weeks, M.D.

Dr. Weeks spoke about sleep disturbances, an oft-overlooked but vital issue in orthomolecular psychiatry. Many physicians fail to appreciate the health and longevity inducing effects of therapeutic slow-wave deep sleep vs. the utilitarian eight hours we've settled for. When one realizes how vital sleep is to general health it is rather shocking that the National Sleep Foundation's declared treatment of choice is a benzodiazepam blunt club. The orthomolecular approach, by contrast, encourages therapeutic sleep by proactive behaviours in a patient's waking hours, combined with nutritional methods. Dr. Weeks' integrated approach converges the physical body, soul and spirit of the individual. The body itself may benefit from supplementation with GABA, magnesium and niacinimide. Optimizing the body includes mastering muscle relaxation to treat sleep apnea and elimination of sleep-distractions such as nightlights, computers, television and books. To bridge the body/mind divide in healing, Dr. Weeks has an "anthroposophical" approach derived from the research of Dr. Rudolf Steiner which treats body health from a spiritual perspective.

Katherine Raymer, M.D.

Dr. Raymer's technical lecture dealt with genes, nutrition and mental illness from the perspective of the latest findings of the recently completed Human Ge-

nome Project which set out to map all the genes of human body and hopefully, solve some of the genetic mysteries of physical and mental disease. Dr. Raymer explained that this research will someday show us how specific genes, which produce enzymes, receptors and biochemicals, are linked to specific mental illnesses. She cited twin studies in depression, bipolar disease and schizophrenia which have already alluded to the relationship of heredity to mental health. She warned, however, that as more is known about our genetic destiny locked up in our DNA, the potential for invasions of privacy increase: this is a project fraught with ethical considerations of discrimination on the basis of one's propensity to a given disease or mental illness. To Dr. Raymer, "nutrigenomics" means taking a broad approach and realizing that complex mental illness are polygenic in nature—likely the result of many genes interacting along with the environmental stressors.

Jonathan Prousky, N.D.

Dr. Prousky, one of the great orthomolecular communicators at our conferences, gave another interesting talk this year on treatment of anxiety disorders, a nearly universal human affliction, to varying degrees. Dr. Prousky expanded on the somatic aspects such as tachycardia, hyperhidrosis and agitation, and emotional components like hypervigilance, "catastrophizing" and feelings of impending doom. When we perceive a threat, our chronic anxiety-reducing behaviours work in the short-term but at the price of reinforcing our natural "fight or flight" physiological reactivity. The consequences of chronic anxiety also affect us at a fundamental level—we are more prone to addictions, our resistance to disease diminishes and our bouts of illness are more prolonged. Conventional treatments are wholly inadequate because although they mask symptoms, they occlude causes. Nutritional research, by contrast, has shown us that many biochemical disturbances are associated



Linda Santini at the NMT Public Evening

with susceptibility to anxiety and can be alleviated by natural means.

Dr. Prousky's practice uses dietary modifications to unmask food allergies and treat reactive hypoglycemia. Blood sugar reactivity is strongly implicated in anxiety but can be treated with a shift to more dietary protein and fat. This can reduce the body's buildup of lactic acid which also plays a role in anxiety. Specific supplements include niacinimide as a first line treatment with supporting roles for vitamin B₁₂, glycine and 5-HTP. Dr. Prousky concluded by saying that orthomolecular medicine can be of great benefit in blunting our entrained anxiety reactions by improving the neuronal plasticity we need to modify our perception of stress. After a faithful six months in an optimum orthomolecular environment, the brain is well prepared to reprogram itself.

Abram Hoffer, M.D., Ph.D.

Dr. Hoffer closed the conference with his talk on pellegra and schizophrenia. After practising medicine for 55 years, few physicians alive today could provide such a unique panorama of schizophrenia, its changed public persona and treatment history.

Dr. Hoffer is in a battle against the very word schizophrenia. As he explained, in 1900 the differential diagnosis of insanity covered four preconditions: dementia praecox, pellegra, scurvy and general paralysis and dementia of syphilis. The general internists successfully treated the latter three diagnoses with vitamins or antibiotics but we are still left with the first, which



Sister Theresa Feist at the NMT Public Evening

has now been mislabelled “schizophrenia” and relegated to the backwaters of medicine. Dr. Hoffer presented a compelling case that schizophrenia should really be reconsidered as a particularly recalcitrant form of pellagra, as both are clinically indistinguishable in their two-fold presentation of perceptual and thought disorder and responsiveness to niacin therapy. The only real difference is that today’s schizophrenics, like the “chronic pellegrins” of the past, respond to much higher doses than the miniscule amounts needed to treat classic pellagra. Like our evolutionary loss of the enzyme which produces vitamin C from glucose, Dr. Hoffer surmises that we are in yet another change in human physiology, where niacin is beginning to be produced by the body’s weak conversion of tryptophan to niacin. Until that distant future, where niacin is more strongly synthesized, we must be prepared to supplement the niacin deficiency and dependency diseases which plague us today.

“Mental Health Regained” Evening

The conference’s public evening was a special event this year with two new speakers. **Linda Santini** chronicled the devastating experiences of her son’s ADHD and his eventual deliverance through orthomolecular treatment. The gentle wit and humour of **Sister Theresa Feist** regaled the evening’s attendees as she spoke of her unique orthomolecular journey out of her own mental illness, which also became the means to her finding a lifelong vocation in helping others with schizophrenia through the Flaman-Morris Home she founded. **Margot Kidder**, our wonderful spokesperson, has evolved over the years to become an exceptionally acute observer of the psychiatric labyrinth. She provided a welcome levity to the evening as she spoke to the audience of her journey from mental illness to full recovery.

One can attend the Nutritional Medicine Today conference year after year and not exhaust the new therapeutic frontiers presented. This year’s conference was another testament to the creativity of the orthomolecular community. We hope to see you at next year’s conference, April 19-22, in Toronto.

—Greg Schilhab

IN BRIEF

Ginkgo Biloba Added to Olanzapine on Therapeutic Effect and Antioxidant Enzyme Levels in Patients with Schizophrenia

It has been suggested that the extract of ginkgo biloba (EGb) may enhance the efficiency of the classic antipsychotic haloperidol in patients with chronic schizophrenia, especially on positive symptoms, and reduce serum superoxide dismutase (SOD) levels.

In this study, the researchers evaluated the therapeutic effect of EGb and the effect on the levels of antioxidant enzymes in schizophrenic patients on olanzapine treatment. The subjects were randomly assigned to the two groups: olanzapine plus EGb (group 1, n=15) and olanzapine alone (group 2, n=14). The patients were evaluated at baseline and at week 8 with respect to the Positive and Negative Syndrome Scale (PANSS). At baseline, no statistically significant difference regarding the mean total PANSS scores between treatment groups was found. At the evaluation of week 8, a significant difference in mean Scale for the Assessment of Positive Symptoms (SAPS) scores was found. The present study supported the findings of the previous study demonstrating that EGb might enhance the efficacy of antipsychotic drugs in patients with schizophrenia, particularly on positive symptoms of the disorder.

—*Psychiatry Clin Neurosci*, 59(6): 652-6, 2005

Abnormally High Plasma Levels of Vitamin B₆ in Children With Autism

The aim of this study was to investigate the biochemical basis for vitamin B₆ therapy by measuring the level of total vitamin B₆ in the plasma of unsupplemented children with autism compared to unsupplemented control subjects. Children with autism (n= 35, age 3-9 years) and unrelated typical children (n=11, age 6-9 years) were studied. A microbiologic assay was used to measure the level of total vitamin B₆ in a blinded fashion.

Children with autism had a 75% higher level of total vitamin B₆ than the controls (medians of 56 versus 32 ng/mL). Most of the autistic children

(77%) had levels that were more than 2 standard deviations above the median value of the controls. The autistic girls (n=5) also had elevated levels (mean of 54.6 ng/mL, median of 60 ng/mL).

Previous studies found that pyridoxal kinase had a very low activity in children with autism and pyridoxal 5 phosphate (PLP) levels are unusually low in children with autism. Thus, it appears that the low conversion of pyridoxine to PLP results in low levels of PLP, which is the active cofactor for 113 known enzymatic reactions, including the formation of many key neurotransmitters. Total vitamin B₆ is abnormally high in autism, consistent with previous reports of an impaired pyridoxal kinase for the conversion of pyridoxine and pyridoxal to PLP. This may explain the many published studies of benefits of high-dose vitamin B₆ supplementation in some children and adults with autism.

—*J Altern Complement Med*, 12(1): 59-63, 2006

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BOOK REVIEWS

The Natural Medicine Guide to Bipolar Disorder

Stephanie Marohn
Hampton Roads Publ. VA, USA
2003. \$14.95 Softcover, 217 pages

Medical journalist Stephanie Marohn is the prolific creator of the *Natural Medicine Guides* to addictions, autism, depression, anxiety and schizophrenia. She has now produced a guide which offers alternative methods for treating the symptoms of bipolar disorder.

Marohn begins her book with a primer on the basics of bipolar disorder, a disease which affects a staggering 2.3 million adults and 1 million children. There are many forms of this disorder, ranging from Type I (plumbing the full spectrum of moods) to Type II (favoring the depressive end of the spectrum), with other less common manifestations like cyclothymic, mixed episode and rapid cycling variants. Going beyond the stigma of the disease, Marohn shows us that, like schizophrenia, bipolar disorder has followed humanity from its beginnings and, surprisingly, has often been associated with flights of creativity and high achievement for some sufferers.

Recent research make it clear that no single cause can account for the complex nature of bipolar disorder. Marohn lists some of these factors: genetic vulnerability, stress, chemical toxicity, heavy metals, food allergies and nutrient imbalances and deficiencies.

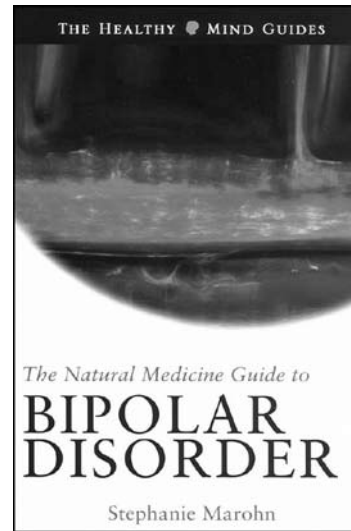
The treatment section of Marohn's book is a departure from other guides in that, instead of the standard listing of helpful nutrients, she profiles some innovative health care practitioners who use a variety of healing modalities to treat bipolar disorder. This is an interesting and rich survey of treatments ranging from Dr. Dietrich Klinghardt's "Five Levels of Healing to Dr. William Walsh's orthomolecular approach. Other modalities covered include amino acid therapy, cranial osteopathy, NAET allergy elimination technique, homeopathy and Shamanistic medicine.

Marohn concludes the treatment chapters with the caveat that although

biochemical imbalances underlie the majority of cases of bipolar disease, our physical state of health is often a reflection of the mental, intuitive and spiritual factors. A holistic approach means that we must address these factors which converge to create the complex syndrome of bipolar disease. Also included is a resource section for those interested in contacting the practitioners of the treatment modalities featured in the book.

Marohn's *Natural Medicine Guides* are succinct introductions to holistic treatments for reversing some of the major mental disorders which plague our society. This book is a fine addition and gathers the experts in the field to address patient's biological, psychological, emotional, and spiritual complexity in a holistic approach which goes far beyond the standard pharmacological interventions that many patients find ineffective.

—Greg Schillhab



Fox Television and Orthomolecular Medicine

Orthomolecular medicine has been engaged in an uphill battle with mainstream media since the pioneering days of Drs. Hoffer and Osmond. It seemed that only when pigs managed to fly, would anything orthomolecular infiltrate the media, particularly the big business airwaves of television. However, a few weeks ago, to the benefit of orthomolecular medicine, somewhere sky-high those pretty-in-pink hogs were spotted floating on clouds.

Fox Television's (U.S.) hit series, *House*, revolves around a sarcastic but genius doctor who first insults and then saves his patients from medical mysteries. In early May, 2006, Fox and the Canadian station, Global Television, aired an episode called "Forever" (episode #222). In the show, Dr. House diagnoses a woman experiencing post-partum depression with severe hallucinations. Despite the

soap-opera antics, the episode linked the patient's symptoms to pellagra. House even spent a few moments explaining that the patient was a former alcoholic, and therefore most likely had a terrible diet that left her niacin deficient (causing the pellagra-related dementia).

The episode's pellagra-niacin plot



The cast of the Fox television show "House"

is overshadowed by the discovery that the patient has cancer. Nevertheless, the inclusion of the vitamin-as-treatment notion in a hit North American television

series is a direct advancement, although unacknowledged, for orthomolecular medicine in mainstream media. Considering that published research on pellagra and niacin would come only from orthomolecular sources, the show's writers must have researched the episode using the work of Dr. Hoffer and colleagues.

While shows like *House* continuously support the pharmaceutical giants on a weekly basis, airing an episode that directly linked a condition to a vitamin deficiency is monumental. Infiltration of popular media in North America may provide another way to change the current social-medical paradigm. What was once unheard of may become part of a collective consciousness. Just wait and watch: this season Dr. House prescribed niacin for pellagra; next season he may prescribe intravenous vitamin C for cancer!

—Talya Rotem, M.A.