

Nutrition & Mental Health

The Quarterly Newsletter of the International Schizophrenia Foundation



Winter 2004

FROM THE EDITOR The Tyranny of "Freedom"

Who is primarily responsible for our children? Hitherto, such a question would elicit the hue and cry of families: "We, as parents, know our children best and we have the right to decide what to allow into their lives."

This year in the USA, however, a major policy issue called the "New Freedom Commission on Mental Health" is looming, which will directly challenge the claim of parents as sole protectors and guides. The government initiative is recommending mandatory and comprehensive mental health screening for every child in America. It states: "The key to improving academic achievement is to identify mental health problems early and, when needed, provide appropriate services."

The import of this program has caused much consternation on both sides of the political aisle. As a physician, Rep. Ron Paul (R-TX), is concerned that the report's recommendations threaten to take on a life of their own. This legislation "represents one more step to remove power from parents and place it in the hands of bureaucrats." He also worries that powerful lobbies—namely, those associated with the pharmaceutical industry—are active in promoting this legislation because it helps them to market more effectively their wares to children.

The invisible hand behind the New Freedom report is, in fact, an industry lobby. Allen Jones, an official in Pennsyl-

vania's Office of the Inspector General (OIG) was given the task of investigating the propriety of activities involving pharmaceutical companies and state officials. He discovered that the impetus for the New Freedom Initiative began years ago with a pilot program called the Texas Medication Algorithm Project (TMAP), an alliance of individuals from the pharmaceutical industry, the University of Texas, and the mental health and corrections systems. TMAP, which Jones' state adopted in 2002 was, in fact, driven by pharmaceutical companies who lobbied politicians mightily to insure their most expensive patented drugs were listed as the designated treatments on the algorithms. Jones released an extensive report about the scandal in January 2004 and was subsequently fired by the OIG.

Drugs can be a godsend to those children who suffer from legitimate mental illnesses but this initiative has no safeguards against widespread medication of the emotional turmoil known as "youth." Ritalin is already over-prescribed to palliate kids who simply exhibit attention-seeking or impatient behaviour. Perhaps "faulty ideation" will soon be included in the assessment of children. It's a reasonable supposition: presently there is intensive study of SSRI drugs to treat "Oppositional Defiant Disorder," probably the DSM-IV's most Orwellian "syndrome" and one which covers just about everyone with a strong opinion.

Elected officials should apply the

same oversight and logic in health care policy-making as they do in purchasing major weapons systems: identify the mission; define the terms; investigate the state of the art; compare data; identify conflicts of interest; make recommendations. Had they proceeded in such a way, they would have quickly discovered a plethora of alternatives to mandatory drugging.

Consider the Peak Performance Program, for example; an orthomolecular, community-based mental health initiative for children in Wisconsin schools (see *N&MH Summer '04*- video available from ISF). Created by the biochemist Paul Stitt, Peak Performance's mission is as simple as its method. The goal is to correct behaviour through diet by educating school officials on how to replace junk food with nutrition that optimizes brain function. Unlike New Freedom's blandishments, Peak Performance is scientific. The efficacy of this program is based on data gathered from multi-year follow-ups of the students, and its greatest proponents are the parents, teachers and kids themselves.

Orthomolecular therapy is by nature patent-free which is the best guarantee we have to safeguard our health from political malfeasance. Without independence in medical research, the New Freedom will become the new slavery. Children's mental health would effectively become nationalized and given "appropriate services" if it deviates from the definition by the state. ☐

—Greg Schilhab

Nutrition & Mental Health (ISSN 1199-7699) is published quarterly by the International Schizophrenia Foundation, 16 Florence Avenue, Toronto, Ontario, Canada, M2N 1E9. Phone (416) 733-2117, Fax (416) 733-2352. E-mail centre@orthomed.org Copyright by the International Schizophrenia Foundation. ISF Membership is \$35.00 per year which includes a subscription to *Nutrition & Mental Health*. It is recommended that treatment of all health problems be undertaken in consultation with a qualified Health Professional.

Editor/Production: Greg Schilhab

Managing Editor: Steven Carter

ORTHOMOLECULAR FRONTIERS: RHODIOLA ROSEA

Nutritionally savvy *N&MH* readers may be familiar with substances called adaptogens. The concept is an old one: in the 1940s, Russian researchers defined an adaptogen as an agent that allows an organism to pre-adapt and counteract adverse physical, chemical or biological stressors by generating a non-specific resistance. Traditional adaptogens such as ginseng have long been studied for their diverse physiological effects on central nervous system and cardiovascular function. Recently, a unique “second generation” adaptogen called Rhodiola Rosea has been brought to the West, with promising mental health implications.

Rhodiola Rosea is also known as “Golden Root” and has been used for centuries to cope with the stresses of the cold Siberian climate. Russian and Scandinavian scientists continue this interest and have intensively studied the herb to characterize its effects. The active components of Rhodiola are rosavin and salidroside, glycolides which reduce levels of the stress hormone, cortisol, as well as modulate mood and energy by normalizing brain monoamines. Researchers also surmise that Rhodiola’s effects may also be due to its ability to induce the body’s natural pain-killing opioid system through peptide synthesis and receptor upregulation.¹ It also appears to boost synthesis of adenosine triphosphate (ATP), the main “energy-currency” which cells use for metabolic activity.

In animal studies, oral administration of Rhodiola extracts modulate brain monoamines in the cerebral cortex, brain stem and hypothalamus. In the cerebral cortex and brain stem, levels of norepinephrine and dopamine decrease, while the amount of serotonin increases. In the hypothalamus, the results are reversed: a 3-fold increase in the amount of norepinephrine and dopamine and a decrease in serotonin levels. It is also believed

Rhodiola facilitates the transport of neurotransmitters in the brain.¹ In addition to these monoamine effects, Rhodiola has been reported to prevent the depletion of adrenal catecholamines induced by acute stress.¹

Part of the reason Rhodiola has escaped the attention of western medicine is that it was often used to treat “neurasthenia.” This term is an older mental illness classification which has fallen out of favour in the DSM-IV in its ever-expanding galaxy of “new” mental illnesses. Neurasthenia is still used widely throughout the world to describe a spectrum of symptomatology such as depression, neuroses, somato-form disorders,



and chronic fatigue syndrome. Rhodiola, as an adaptogen, is a valuable natural ally to treat these conditions.

In one human study, doctors evaluated the effect of 170 mg of Rhodiola extract for 14 days on aspects of mental performance and fatigue on 56 healthy male and female physicians on night duty. Mental performance was evaluated using tests to determine attention capacity, speed of visual and auditory perception and short-term memory. Based on the results of the battery of tests used, a “fatigue index” was calculated. A statistically significant improvement in this index was observed during the first two-week period for the Rhodiola group, and the improved mental performance reverted when the placebo was introduced.²

Spasov and colleagues compared 100 mg/day of Rhodiola extract with placebo in a double-blind 20-day study of 60 Indian medical students studying in Russia during their final exam period.³ Despite the low dosage, investigators

found significant improvements in general well being, physical fitness, mental fatigue, final exam grades and coordination in students taking Rhodiola extract compared to placebo.⁴

The psycho-stimulant effects of Rhodiola were studied in 53 healthy subjects and 412 patients with neurasthenic syndromes of both functional and organic origin. Fatigue, decline in work capacity, insomnia, poor appetite, irritability, and headaches whether due to psychiatric or physical causes such as influenza, responded favorably to 50 mg Rhodiola three times per day for one to sixteen weeks.

In another study of 128 patients aged 17–55 years, Rhodiola alleviated fatigue, irritability, headache, weakness and other symptoms in 64 percent of cases.⁴

In an open study 27 healthy students, physicians, and scientists were given 10 drops of Rhodiola tincture once or twice a day for 2–3 weeks before intense intellectual work, such as final exams. The extract improved the amount and quality of work and in all cases prevented asthenic decompensation (loss of work capacity due to fatigue).⁵

Rhodiola’s history extends back several thousand years to the native healers of the East and the “Golden Root” who prized it above all other plants for maintaining health in the harshness of the Siberian steppe. The speed and competition of our modern world asserts its own stressors, and this unique adaptogen may be a lifeline from the past for the mental illnesses of today. □

—Greg Schilhab

References

1. Rhodiola Rosea: A Phytomedicinal Overview. *HerbGrams*. 56: 2002.
2. *Phytomedicine*. 2000; 7(5):365-71.
3. *Phytomedicine*. 2000; 7(2):85-9.
4. Saratikov AS, Krasnov EA. Chapter VIII: *Clinical studies of Rhodiola*. Tomsk, Russia: Tomsk State University; 1987; 216-27.
5. Krasik ED, Petrova KP, Rogulina GA et al: *Urgent Problem in Psychopharmacology*. 1970; 298-300.

IN BRIEF

Randomized, Placebo-controlled Study of EPA as Supplemental Treatment in Schizophrenia

The study investigated the efficacy and tolerability of eicosapentaenoic acid (EPA) as add-on treatment in chronic, severe schizophrenia. A randomized, parallel-group, double-blind, placebo-controlled, fixed-dose, add-on study was conducted over 12 weeks. Forty patients with persistent symptoms after at least 6 months of stable antipsychotic treatment received EPA or placebo, in addition to their existing treatment. At 12 weeks, the EPA group had significantly greater reduction of Positive and Negative Syndrome Scale total scores and of dyskinesia scores than the placebo group. EPA may be an effective and well-tolerated add-on treatment in schizophrenia.

—Am J Psychiatry, 159(9): 1596-8 2002

Double-blind, Placebo-controlled Study of Zinc Sulfate in the Treatment of Attention Deficit Hyperactivity Disorder.

The most commonly used medications for attention deficit hyperactivity disorder (ADHD) are psychostimulants. There is, however, considerable interest in exploring alternative therapies as some patients respond poorly to or are unable to tolerate stimulants. Previous studies have suggested that deficiency of zinc play a substantial role in the pathogenesis of ADHD, therefore, a treatment trial using zinc sulfate was developed.

Patients with a primary diagnosis of ADHD (72 girls, 328 boys) were randomly assigned in a 1:1 ratio to 12 weeks of double-blind treatment with 150 mg/day of zinc or placebo (n=198). Efficacy was assessed with the Attention Deficit Hyperactivity Disorder Scale (ADHDS), Conners Teacher Questionnaire, and DuPaul Parent Ratings of ADHD. Safety evaluations included monitoring of adverse events, vital signs and clinical laboratory values.

At the end of the study, zinc

sulfate was statistically superior to placebo in reducing both hyperactive, impulsive and impaired socialization symptoms, but not in reducing attention deficiency symptoms, as assessed by ADHDS.

It was determined that the hyperactivity, impulsivity and socialization scores displayed significant decrease in patients of older age and high BMI score with low zinc and free fatty acids (FFA) levels. Zinc sulfate was well tolerated and associated with a low rate of side effects. Zinc monotherapy was significantly superior to placebo in reducing symptoms of hyperactivity, impulsivity and impaired socialization in patients with ADHD. High dose zinc treatment appears to be an efficacious treatment for ADHD patients having older age and high BMI score with low zinc and FFA levels.

—Prog Neuropsychopharmacol Biol Psychiatry, 28(1): 181-90 2004

Supplementation with a Combination of Omega-3 Fatty Acids and Antioxidants Improves the Outcome of Schizophrenia

Reduced levels of membrane essential fatty acids, namely, arachidonic acid (AA), eicosapentaenoic acid (EPA), docosapentaenoic acid (DPA) and docosahexaenoic acids (DHAs), and their association with psychopathology have been consistently reported in both chronically medicated as well as never-medicated schizophrenic patients.

In this study, 33 schizophrenic patients were supplemented with a mixture of EPA/DHA (180:120 mg) and antioxidants (vitamin E/C, 400 IU:500 mg) orally morning and evening for 4 months. Physiological and clinical measures were carried out at pre-treatment, post-treatment and after 4 months of postsupplementation period to determine the stability of treatment effects within patients. There was significant reduction in psychopathology based on reduction in individual total scores for brief psychiatric rating scale (BPRS) and positive and negative syndrome scale (PANSS), general psychopathology-PANSS and

increase in Henrich's Quality of Life (QOL) Scale. The supplemented fatty acid levels returned to pretreatment levels after 4 months of supplementation washout. However, the clinical improvement was significantly retained. This study establishes further evidence that the essential fatty acid supplementation is an effective treatment to improve the outcome of schizophrenia.

—Schizophr Res, 62(3): 195-204 2003

The Efficacy of a Combination Plant Extract and Magnesium in Mild-to-Moderate Anxiety Disorders

To assess the clinical efficacy of a herbal treatment containing two plant extracts (*Crataegus oxyacantha* and *Eschscholtzia californica*) and magnesium versus placebo in mild-to-moderate anxiety disorders, 264 patients presenting with generalized anxiety (DSM-III-R) of mild-to-moderate intensity were included in a double-blind, randomized, placebo-controlled trial.

Patients were randomly assigned to two groups: 130 received the study extract (*Sympathyl*), and 134 a placebo (two tablets twice daily for 3 months). Efficacy and safety data were recorded before and 7, 14, 30, 60 and 90 days after start of treatment.

Efficacy was assessed by (a) change in Hamilton anxiety scale total and somatic scores; (b) change in patient self-assessment; (c) number and percentage of responsive subjects (reduction of at least 50% in Hamilton or self-assessment score); and (d), the physician's clinical global impression. Total and somatic Hamilton scale scores and subjective patient-rated anxiety fell during treatment, indicating clinical improvement and the decrease was greater in the study drug than in the placebo group. End of treatment clinical improvement was significant for the herbal group on the total anxiety score; on the somatic score; and for subjectively assessed anxiety. The researchers concluded that these herbs in combination with magnesium proved safe and more effective than placebo in treating mild-to-moderate anxiety disorders.

—Curr Med Res Opin, 20(1): 63-71, 2004

BOOK REVIEW

8 Weeks to Vibrant Health: A Woman's Take-Charge Program

By Hyla Cass, M.D., and Kathleen Barnes. McGraw Hill, Inc. 2005, Softcover, 334 pages

Dr. Hyla Cass is one of our foremost authorities on orthomolecular medicine. As Professor of Psychiatry at UCLA School of Medicine, she has incorporated nutrition and natural health techniques into her practice for more than 20 years and shares her many clinical successes from her previous best-selling book, *Natural Highs*.

Dr. Cass has devised the Vibrant Health Plan based on her experience in treating hundreds of women of all ages. In it, she helps women overcome common health problems through a practical, 8-week program to teach the underlying causes of health problems, along with safe alternative treatments that combine conventional and nutritional medicine to restore balance, reclaim energy, and restore well-being.

The book is divided into three parts. The first section deals with the fundamentals of designing a health plan, and Dr. Cass gives women one task for each week of the program. These tasks combine self-education, self-evaluation, and self care. Short self-scoring questionnaires cover nutrition, lifestyle habits, hormonal patterns and brain chemistry. Based on these measures, Dr. Cass recommends medical tests such as liver and immune function and blood lipid profiles to gain a more definitive idea of what one's particular health state.

After the fundamentals of Part One, Dr. Cass moves to the next phase: addressing the imbalances in ten basic areas, in-

cluding hormonal, immune, brain and digestive systems. This is the section is where one learns how to recognize signs and symptoms as degenerative patterns such as Syndrome X, PMS, menopause onset or musculoskeletal disturbances like migraines and arthritis.

Integrative medicine necessitates a bit of a trial and error approach, but Dr. Cass shows, through case histories, how this detective work can be done systematically. One patient believed her allergies and chemical sensitivities were due to intestinal dysbiosis. After working through the book's protocols, however, she remembered her fatigue increased in the presence of chemicals like gasoline or new fabrics. This suggested a heavy metal burden, and when tested, the woman indeed showed high levels of mercury, which was interfering with her Candida medication.

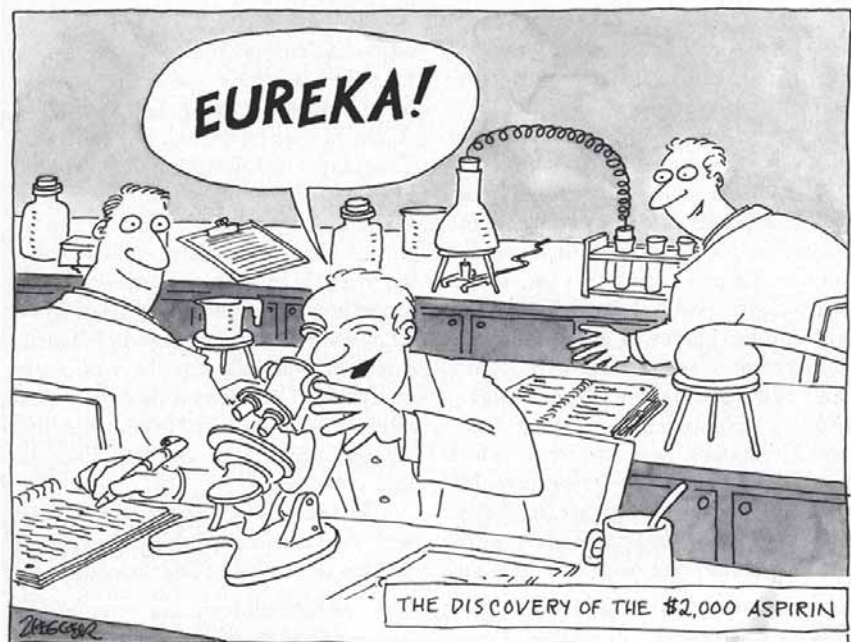
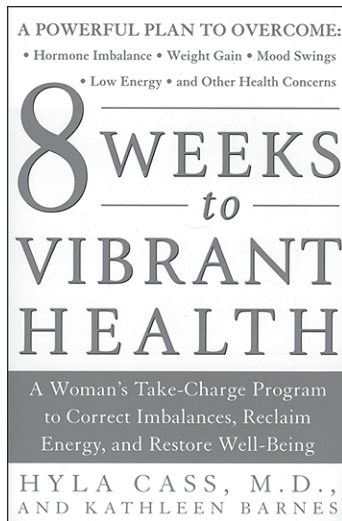
Reduction of the mercury allowed her dysbiosis to clear and her allergies, in turn, regressed. The ideal goals of the eight-week plan are to use the book's exploratory

assignments to develop a daily consciousness of health. By understanding environmental triggers, stress, and food sensitivities women can customize a plan for consistent health and energy.

Part Three discusses how managing weight is best approached as part of a total balance of health and how chromium, glutamine, carnitine and green tea can help to achieve an healthy body-mass index. Other chapters explain how to find and build a good rapport with a nutritionally-oriented health care practitioner, and provide contacts for professional associations specializing in functional medicine. Addresses of testing labs which specialize in dysbiosis, allergies and minerals are listed, as well as the major internet resources which focus on women's health issues. Dr. Cass closes with a supplement guide which gives the reader information on dosages, brands and contra-indications which she has found effective in her years of practice.

Hyla Cass has presented an integrated approach to restore body balance and general health. Incorporating the best of conventional and alternative methods, *8 Weeks to Vibrant Health* provides the critical nutritional information for women that their doctors often don't know about. □

—Greg Schilhab



from The New Yorker