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Memo to: CT Children's Mental Health Task Force Members

From: Gracelyn Guyol, Complementary & Alternative Medicine (CAM) Sub-Committee

Date June 18, 2014

Subject: 10 CAM Treatment Recommendations

The following are executive summaries covering ten CAM mental health treatments I recommend for Task Force consideration. Each summary lists practitioners/professionals having years of experience using the treatment, and their credentials; explains how the treatment works and its history of use; suggests online videos for quick or not well-known facts; estimates the cost for treatment or a device; and lists selected research that reveals how knowledge has accumulated over the years, sometimes decades, and where it stands today.

If a summary triggers more questions, a folder is available for each topic that contains printed copies of research abstracts, selected studies, and pertinent articles. Often a book authored by one of the expert practitioners/researchers is also enclosed, making in-depth information available to all Task Force members.

I am sorry I cannot attend this month's meeting due to a family gathering in Kansas City, but I will be happy to answer questions by e-mail, cell phone (860) 235-1368, or at the next Task Force meeting.

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To:	CT Children's Mental Health Task Force	
From:	CAM Sub-Committee	
Goal:	Introduce CAM evidence-based, effective, affordable ways for treating: ADHD (6.8% prevalence) Behavior/conduct disorders (3.5%) Mood disorders of depression, anxiety, & bipolar (3.0%)	
Folde	r Topics	For Treating
1.	Brain Balance Centers, Robert Melillo, Neurologist, Dyslexia, Professor, Functional Neurology Researcher	ADHD, Autism, Tourette's
2.	Nutrient Therapy, William J. Walsh, PhD, Director, Behavior Walsh Research Institute	ADHD, Mood and Anxiety Disorders
3.	Neurofeedback, Mary Jo Sabo, PhD, LMHC, BCIA, AIBT Anxiety Biofeedback Consultants, In-School & Private Programs	ADHD, Depression, OCD
4.	Fast ForWord Language Programs, Michael M. Merzenich, PhD, Brain Plasticity Researcher, Co-Founder, Scientific Learning	ADHD, Special Ed, At Risk Students
5.	Cerebral Electrotherapy Stimulation (CES), Charles Fisher, President and Co-Founder, Fisher Wallace Laboratories	Depression, Anxiety, Insomnia, Pain
6.	Bipolar Nutrient Supplements from EMPowerplus & Equilib or individual protocol from Anne Procyk, ND, Third Stone Health	Bipolar Disorder
. 7.	Emotional Freedom Technique (EFT), Jane Percy, BA, CIH, ChT, Director, Riverlight Wellness	Anxiety, Trauma, PTSD
8.	ACACD Auriculotherapy (Ear Nerve Stimulation); with Amino Acid Therapy SynaptaGenX, developed by Kenneth Blum, PhD	Addiction Recovery
9.	Homeopathy Medicine, created by Christian Frederich Samuel Hahnemann, of Neissen, Germany, circa 1790	All Mental Disorders
1(). Holistic Treatment of Psychiatric Crises & Violence, Peter R. Breggin, MD, and Michael B. Schachter, MD, CNS	Violence, Aggression Mania

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FOR CONSIDERATION BY CT CHILDREN'S MENTAL HEALTH TASK FORCE

FOLDER #1 Brain Balance Centers, www.brainbalancecenters.com

CONTACT Dr. Robert Melillo, Co-founder, Brain Balance Centers, chiropractic neurologist, professor, researcher; e-mail drrm1019@aol.com

TREATMENT

The Brain Balance Centers program has been used for 10 years to treat **ADHD**, **depression, autism/Asperger's, dyslexia, Tourette's, and other disorders.** Research reveals the primary problem underlying these disorders is "Functional Disconnection." A brain normally communicates between both hemispheres at lightning speed. When communications between the right and left hemispheres are abnormal, often due to not maturing at the same rate, the underdeveloped side runs at a slower speed. Without sufficient neuronal connections and compatible processing speed, children become partially disconnected from their bodies and senses. This, in turn, causes behavioral, emotional, social, and learning difficulties.

The Centers assess a child's functioning in three areas: 1) sensorimotor, 2) neuroacademic, and 3) bio-nutritional. A customized 12-week program is developed for each child. Sensory, physical, and academic exercises are used to stimulate growth of new brain connections, increase processing speed, and develop normal rhythm. A dietary program and supplements help correct nutrient deficiencies and optimize brain function. Intake of environmental toxins—found to be major contributors—is reduced through family education. The program has seen many children with learning difficulties advance by three or more grades in a few months.

Although this Task Force chose not to include autism in this work session due to its overwhelming complexity, we may want to reconsider after reviewing the Brain Balance approach. This is the only program I am aware of that treats all symptoms of autism concurrently in one customized 12 – 36 week program (see Results chart enclosed). Some autistic children who have never spoken are now happy, social, academic achievers, because when brain dysfunction is treated young enough, layers of developmental problems are prevented. Given \$40-60,000 annual treatment costs for one autistic child, prevention seems the only way to keep State budgets from skyrocketing in the aftermath of the current "autism epidemic." Treatment while a brain is still rapidly developing can reduce the number of individuals having a life-long dependency on State aid or institutional care.

BACKGROUND

In 2003, driven by his deep interest in and intensive studies of neuro-behavioral challenges, Dr. Melillo developed Hemispheric Integration Therapy, a multi-modal approach to the remediation of ADHD and other disorders listed above, a precursor to the current program. To help patients and parents, Dr. Melillo has authored three books: *Disconnected Kids* (2009), *Reconnected Kids* (2011), and *Autism* (2012). Yet his primary focus remains expanding scientific understanding and treatment of mental disorders. He serves as Affiliate Professor of Rehabilitation Sciences at Nazareth Academic Institute; Senior Research Fellow at The National Institute for Brain and Rehabilitation Sciences; President, International Association of Functional Neurology and Rehabilitation; Co-Editor-In-Chief, *Functional Neurology, Rehabilitation and Ergonomics*; and Executive Director, F R Carrick Research Institute.

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In 2006, the first Brain Balance Center was co-founded by Dr. Melillo and William Fowler in Ronkonkoma, NY. After seeing rapid improvements in children at the center, Fowler determined to create a franchise business to help as many as possible. His economics background and creativity bore fruit in a Brain Balance Center franchise with proprietary software that enables tremendous data collection, franchisee support, and increased efficiency and productivity. Fowler is CEO of Brain Balance Centers, currently at 54 locations in the US.

Melillo talk at Autism One, http://www.youtube.com/watch?v=18fifplEspM.

Enclosed DVD interview of Dr. Mark Goldenberg, DC, Chiropractic Neurologist and Executive Director of Brain Balance Achievement Center, Norwalk CT.

COSTS

VIDEO

The Brain Balance program is individually developed to meet the needs of a child (ages 4 -17) based on a comprehensive assessment performed in a Center location. An assessment covers over 200 individual measurements in the area of sensory-motor skills, vestibular, auditory, vision proprioception, tactile and olfactory skills. The initial assessment cost for an individual is \$295.00. State pricing \$195.00

The program is offered to families on a private-pay basis. Cost is determined by the number of service weeks needed to achieve desired results. Most programs range from 12-36 weeks. Price for an individual 12 week program is \$6,500. State pricing is \$5,895.00, including all lab work. Additional costs may include dietary supplementation, which can range from \$100.00-\$150.00 over a three month period.

RESEARCH

Dr. Melillo provided a six page listing of conference presentations, books or book chapters written, and published papers from 2007-2013. This list is in the Task Force folder. Below are selected research references.

Leisman G, Mualem R, Machado C, "The Integration of the neurosciences, child public health, and education practice: hemisphere-specific remediation strategies as a discipline partnered rehabilitation tool in ADD/ADHD, *Frontiers of Pub Health*, 25 July 2013, 10.3389/fpubh.2013.00022 (Abstract included in this folder)

Machado C, Estevez M, Leisman G, Melillo R, Rodrigues R, Defina P, Hernandez A, Perez-Nellar J, Naranio R, Chinchilla M, Garofalo N, Vargas J, Beltran C, "QEEG Spectral and Coherence Assessment of Autistic Children in Three Different Experimental Conditions." *J Autism Dev. Discord*, DOI 10.1007/s10803-013-1909-5, September 13, 2013. http://www.ncbi.nlm.nih.gov/pubmed/24048514# (Printout of complete study included)

Leisman G, Melillo R, "The Development of the Frontal Lobes in Infancy and Childhood: Asymmetry and the Nature of Temperament and Affect," *Frontal Lobe: Anatomy, Functions and Injuries.* Hauppauge, NY: Nova Scientific Publishers, 2012. (Abstract included in this folder)

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Leisman G, and Melillo R, "Effects of Motor Sequence Training on Attentional Performance in ADHD Children." *I J on Disability and Human Dev.* 2010, 9(4), 275-282

Leisman G, Melillo R, Thum S, Ransom, M A, et al, "The Effect of Hemisphere Specific Remediation Strategies on the Academic Performance Outcome of Children with ADD/ADHD," *I J Adolescent Med and Health.* 2010, 22:10, 275-283

Leisman G, Melillo R, "Functional disconnectivities in autistic spectrum disorder as a potent model for explaining disorders of consciousness and cognition in the brain and nervous system." Nov 14 2010

Carrick F R, Leisman G, and Melillo R, "Cognitive changes in ADHD children after a 12 week postural rehabilitation program, "Parkinsonism & Rel Disorders. 2010 16 (suppl 1), S80

Carrick F. R, Leisman G, Melillo R, "A relationship between postural and cognitive abilities in ADHD." Parkinsonism & Rel Disorders. 2010, 16 (suppl.1), S20

Leisman G, Melillo R, "EEG Coherence Measures Functional Disconnectivities in Autism." Acta Paediatrica, 2009, 98:460, 1-292.

Melillo R M, Leisman G, "Autism Spectrum Disorder as Functional Disconnection Syndrome." *Reviews in the Neurosciences* 2009, 20:2, 111-132.

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FOR CONSIDERATION BY CT CHILDREN'S MENTAL HEALTH TASK FORCE

FOLDER #2 Walsh Nutrient Therapy, www.walshinstitute.com

CONTACT William J. Walsh, PhD, Director, Walsh Research Institute, 1155 S. Washington St, Naperville, IL, telephone (630) 400-3400

TREATMENT

Over the past 40 years, Dr. William Walsh has studied more than 30,000 individuals, including over 10,000 children with behavior disorders and/or ADHD. He has developed effective, drug-free, targeted nutrient-based biochemical treatments now used around the world for ADHD, behavioral disorders, depression, anxiety disorders, bipolar disorder, schizophrenia, autism, and Alzheimer's disease.

Walsh's most relevant work relating to Task Force objectives is the Ariel School Project (funded by National Recreation Foundation), where a low-cost system for helping inner-city, atrisk children in a school setting was developed, summarized in Chapter 8 of his enclosed book, *Nutrient Power*. In the project's second year, costs were streamlined and totaled \$300/child. Roughly 10 children per day were seen for a nurse interview, MD physical exam and evaluation, and sampling of blood and urine. (Project summaries enclosed in folder.)

Protocols developed by Walsh *ended* Task Force member Gracelyn Guyol's bipolar mania in four months in 2000. All patients entering his clinic were tested for four inherited errors— pyroluria, over- and under-methylation, and metal metabolism. Guyol was an under-methylator and pyroluric. Pyroluria causes severe deficiencies of zinc and vitamin B6. Low zinc allows copper levels to rise, triggering mania, violence, and aggression. Vitamin B6 is required for production of neurotransmitter GABA and formation of dopamine, norepinephrine, and acetylcholine. Using 100 mg of Zinc and 250-500 mg of B6 daily to compensate for pyroluria lowers copper levels and helps restore mental balance. Specific nutrient combinations are formulated for each individual and disorder.

BACKGROUND

William J. Walsh, PhD, is an internationally recognized expert in the field of nutritional medicine. The author of more than 200 scientific articles and reports, he has been granted five patents, and presented his research at the American Psychiatric Association, the U.S. Senate, and the National Institutes of Mental Health. Degrees from Notre Dame, University of Michigan, and a Ph.D. in chemical engineering from Iowa State University, led to working at Argonne National Laboratory in the 1970s. There he organized studies of prisoners and ex-offenders to research the causes of violent behavior. Walsh has conducted chemical analysis of more than 25 serial killers and mass murderers, including Charles Manson, Richard Speck, James Oliver Huberty, Patrick Sherrill and Arthur Shawcross, and assisted medical examiners, coroners, Scotland Yard, and the FBI in forensics studies.

His accomplishments include (a) groundbreaking studies reporting reduced violent behavior following nutrient therapy, (b) the 1999 discovery of undermethylation and copper/zinc imbalances in autism, (c) the 2000 finding of metallothionein protein depletion in autism, (d) the

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2007 study linking copper overload and post-partum depression, (e) the identification of five biochemical subtypes of clinical depression.

Currently President of the non-profit, Walsh Research Institute in Illinois, he directs research including studies of autism brain tissues, the role of epigenetics in mental health, oxidative stress in disease conditions, and the underlying causes of bipolar disorder.

On-going physician training seminars in advanced biochemical/nutrient therapies are delivered by Dr. Walsh around the world. See enclosed flier on February 24-27, 2014, CME Conference for Physicians in North Carolina, and his presentation abstract accepted for the 2014 American Psychiatric Association Annual Meeting. His book, *Nutrient Power, Heal Your Biochemistry and Heal Your Brain* (2012), describes evidence-based nutrient therapy for mental disorders, including ways to reduce crime and school violence.

WALSH Common contributors to all mental disorders:

VIDEOS www.youtube.com/watch?v=BqNV1SREAws

How to stop school shooters: www.youtube.com/watch?v=0Lg32iyaxwA Violent behavior and ADHD: www.youtube.com/watch?v=mo6pEhg61z8 Behavior disorders: www.youtube.com/watch?v=ubugS-MfeW0&list= PLKft2j0eLt2FIY6C2GNwzDxsiSFX_q6Bs

Five different types of depression: www.youtube.com/watch?v=sgwC3uVWu9A Low Vit. B6 in learning disorders: www.youtube.com/watch?v=92anmQjZKbs

COSTS Dr. Walsh's lecture fee begins at \$500 depending upon presentation length, audience, expected number of attendees, and location. Travel expenses are extra. NutrientS generally range from \$80-120/mo. from a compounding pharmacy.

RESEARCH

Stuckey R, Walsh W, Lambert B, "The Effectiveness of Targeted Nutrient Therapy in Treatment of Mental Illness: A Pilot Study," ACNEM Journal Vol 29 No 3 - Nov 2010

Walsh W, Glab L, Haakenson, M, "Reduced violent behavior following biochemical therapy," *Physiology & Behavior* 2004; 82(5): 835-839

Walsh WJ, Isaacson HR, Rehman F, and Hall A, "Elevated Blood Copper/Zinc Ratios in Assaultive Young Males," *Psysiology & Behavior* 1997, Vol 62 No 2 pp 327-329

Walsh WJ, Usman A, Tarpey J, "Disordered Metal Metabolism in a Large Autism Population," American Psychiatric Association Annual Meeting, May 2001, New Orleans

Bibus, DM, Holman RT, Walsh WJ, "Fatty Acid Profiles of Schizophrenic Phenotypes," 91st AOCS Annual Meeting and Expo, San Diego, California, April 25-28, 2000

Walsh W, "Oxidative Stress, Undermethylation, and Epigenetics – The Bermuda Triangle of Autism," *The Autism File* USA 35 2010, 30-35

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FOR CONSIDERATION BY CHILDREN'S MENTAL HEALTH TASK FORCE

FOLDER #3 Neurofeedback Training, in school environment or privately

CONTACTS

Mary Jo Sabo, PhD, LMHC, BCIA, AIBT, Biofeedback Consultants, Inc. 12 A North Airmont Ave, #1, Suffern, NY 10901, drmjsabo.aol.com, (845) 369-7627,

Jon Cowan, PhD, Peak Achievement Training,1103 Hollendale Way, Goshen, KY, jon@peakachievement.com, (502) 228-0605

Debra E. Burdick, LCSWR, BCN, author, speaker, private neurofeedback trainer, practitioner instructor, Washingtonville, NY, deb@thebrainlady.com, (860) 460-6899

TREATMENT

Neurofeedback emerged from the science of biofeedback in the late 1960s. It is now used to treat ADHD, depression, anxiety/panic, autism, obsessive-compulsive disorder, developmental disabilities, drug abuse, schizophrenia, cognitive dysfunction, head injuries, stroke, epilepsy, and other brain-related conditions.

Each training session involves using electrodes on the head to measure brainwave activity via computer while the trainee watches a computer display and listens to audio tones. Computer feedback enables patients to gradually learn how to consciously change personal brainwave patterns.

In one neurofeedback method, the comprehensive evaluation of brainwave patterns is made by placing a snug cap on the head containing19 small electrodes that measure electrical activity from the brain, enabling creation of a computerized quantitative electroencephalogram (QEEG) brain map. The map is evaluated by statistical comparison to a large, normative database on how a brain should be functioning at the client's age. After an assessment, treatment goals are established. The number of 20-30 minute sessions required for improvement depends on the severity of the problem. For instance, anxiety or insomnia may take 15-20 sessions, ADHD or learning disabilities 30-50.

Peak Achievement Training, a computer-based brainwave training program based on neurofeedback, is simpler, faster, and less expensive. Proprietary software analyzes the brainwaves from a key area, the prefrontal cortex, and shows onscreen how they are changing. Designed so anyone can use the program in roughly 3 minutes, it requires no cap, QEEG, or brain mapping. Instead, lightweight wireless hardware transmits information from a visor or headband to a receiver attached to the computer where brainwave changes can be monitored on screen. This approach produces more rapid results, taking about 15 sessions for ADHD and just 6 for treatment-resistant depression.

The Peak Achievement Training system is recommended for in-school use. The Home Study System and private treatments make brainwave training possible outside the classroom.

In CT General Assembly's February 2002 session, Bill #5501 for a pilot study of Neurofeedback was passed but never funded.

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BACKGROUND

In 1994, **Dr. Mary Jo Sabo** provided neurofeedback training for the ADHD son of Linda Vegara, Principal of Enrico Fermi School for Performing Arts and Computer Science in Yonkers, New York. Impressed by the results, Vegara invited Sabo to train children in her school of 1,000 students, grades pre-K thru 6. Startup funding came from a local politician. Over a period of 7 years, thousands of neurofeedback sessions were performed in three Yonkers schools: Enviro Fermi, School 9, and School 13 (See abstract of a small 2000 *Journal of Neurotherapy* study in this folder.) They trained so-called "gang" leaders first, making them less aggressive and angry, which had a ripple effect on followers. Sabo developed a replicable model for doing neurofeedback in the school environment, initiating programs in Connecticut's American School for the Deaf and at West Point for peak performance. A leader in the field, she now teaches practitioners working toward BCIA national certification and maintains a private consulting, neurofeedback, and psychophysiology practice. Dr. Sabo recommends Peak Achievement Training systems for in-school use.

Jonathan Cowan, PhD, BCIAC, founder and Chairman of Neuro Tek LLC (dba Peak Achievement Training), is a well-known, respected researcher and pioneer in interactive performance enhancement training. He earned a PhD from the University of California, San Francisco, where he worked with Dr. Joe Kamiya, discoverer of brainwave biofeedback. The company's predecessor, Neuro Technology, Inc. was formed in 1993. In 1997, Cowan developed new technology to provide peak performance training. The two companies' products have been used by Indiana University-Purdue University Indianapolis (IUPUI) for academic achievement; the 2001 Super Bowl Champions; Olympic Training Centers in the US, UK, Canada, Israel, Norway, Taiwan and Singapore; US Army Centers for Enhanced Performance, US Office of Personnel Management, and Fortune 500 companies.

Debra Burdick has offered outpatient Psychotherapy and Mindfulness skills in her private practice since 1990, adding Neurofeedback in 1999. Motivated by an ADHD daughter, husband, and business partner, Burdick also treats depression, anxiety, stress, traumatic brain injury, and insomnia in children—who call her "The Brain Lady." She gives practitioner CEU seminars nationally for PESI, LLC, and in June 2014 will deliver "Childhood ADHD, Advanced Non-Drug Treatment & Strategies That Change the Brain." The author of 5 books, numerous CDs, and 3 hour tele-training digital downloads, a copy of Burdick's comprehensive Home Study System for Parents, *A Holistic Approach to Successful Children with Attention Deficit/Hyperactivity Disorder* (including 11 CDs), accompanies this folder.

VIDEO

Enclosed TV 55-minute interview of Burdick, Focus on ADHD. See Peak Brain Happiness Trainer at www.youtube.com/watch?v=-VUBhYh1cRA

COSTS

Total costs for in-school neurofeedback training program need to be developed due to the year lapse since the Yonkers School Program. Using two Peak Performance systems would allow training 2 children every 30 minutes. If scheduled from 9 to 11:30 am, then 12:30 to 2:00 pm, 14 to 16 children can be trained in an average school day. (Some NY schools ran training sessions from 8 am to 6 pm.) One certified training coach should be able to supervise 3-4

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children an hour. Preschool and kindergarten students were trained during reading time, and responded very quickly.

Dr. Mary Jo Sabo: Consultation fees to assist development of CT in-school program are \$250 per hour, \$1500 per day. An annual fee for weekly consulting can be arranged but may include expenses for an overnight stay in CT, since Suffern is across the Tappan Zee Bridge, 3-4 hours from many schools. Dr. Sabo also consults via Skype and Go To Meeting calls.

Peak BrainHappiness Trainer and Mood Elevator system, including 3 DVDs, 2 CDs, and 70 neurovideofeedback designs for Focus, Alertness, and Neureka! protocols. Retail \$1200 for one system (*does not* include PC), State price \$1150. Replacement sensor sponges \$15 per set of three. Shower caps (for lice prevention) \$200 per 1,000. Each system can serve an estimated 8 students per day, using 30-minute sessions

Debra Burdick: Home Study System for Parents, A Holistic Approach to Successful Children with Attention Deficit/Hyperactivity Disorder. (Spiral binder and CDs included for review.) Retail price \$237. State Price \$137. Practitioner Training: \$200 per hour with 1 hour minimum by phone or video conference and \$2000 per day plus travel expenses

NEUROFEEDBACK RESEARCH

A two-page list of ADD/ADHD and Neurofeedback Research articles are included in this folder, along with copies of the following abstracts or studies:

Hammond D C, "What is Neurofeedback: An Update," 2011 J Neurotherapy: Investigations in Neuromodulation, Neurofeedback and Applied Neuroscience, 15:4, 305-336, DOI: 10. 1080/10874208.2011.623090, Epub 2011 Nov 30

Steiner N J, et al, "Computer-based attention training in the schools for children with attention deficit/hyperactivity disorder: a preliminary trial," Epub 2011 *Clin Pediatr (Phila)* Jul;50(7):615-22. DOI: 10.1177/0009922810397887.

Surmeli T, "Post WISC-R and TOVA improvement with QEEG guided neurofeedback training in mentally retarded: a clinical case series of behavioral problems," *Clin EEG Neurosci*, 2010 Jan;41(1):32-41

Ros T, "First direct evidence of neuroplastic changes following brainwave training." University of Goldsmiths London (2010, March 12) press release, *Science News* article

Arns M, et al, "Efficacy of neurofeedback treatment in ADHD: the effects on inattention, impulsivity and hyperactivity: a meta-analysis," *Clin EEG Neurosci*, 2009 Jul;40(3):180-9

Beauregard M, Levesque J, "Functional magnetic resonance imaging investigation of the effects of neurofeedback training on the neural bases of selective attention and response inhibition in children with attention-deficit/hyperactivity disorder, *Appl Psychophysiol Biofeedback*, 2006 Mar;31(1):3-20

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Kaiser D A, "School Shootings, High School Size, and Neurobiological Considerations," *J Neurotherapy*, DOI 10.1300/J184v09n03-07

Orlando P C, et al, "Neurofeedback for Elementry Students with Identified Learning Problems," J Neurotherapy, 2002 DOI 10.1300/J184v08n02_02

Carmody D P, et al, "EEG Biofeedback Training and Attention-Deficit/Hyperactivity Disorder in an Elementary School Setting, 2000 *J Neurotherapy*, DOI 10.1300/J184v04n03_02

QEEG RESEARCH

Thatcher, R W, "Validity and Reliability of Quantitative Electroencephalography (QEEG)," *J of Neurotherapy* 2010 DOI 10.1080/10874201003773500

Hammond D C, "Standards for the Use of Quantitative Electroencephalography (QEEG) in Neurofeedback: A Position Paper of the International Society for Neuronal Regulation," *J of Neurotherapy* 2004 DOI 10.1300/J184v08n01_02

PEAK PERFORMANCE TRAINING RESEARCH

Hillard B, et al, 2013 "Neurofeedback Training Aimed to Improve Focused Attention and Alertness in Children With ADHD, a Study of Relative Power of EEG Rhythms Using Custom-Made Software Application," *Clin EEG Neurosci* 2013 44: 193-202 DOI 10.1177/1550059412458262

Walker J E, et al, 2013 "FP02 Beta Training for Drug-Resistant Depression—A New Protocol That Usually Reduces Depression and Keeps it Reduced, *J of Neurotherapy*, 17:3, 198-200, DOI: 10.1080/10874208.2013.785784

Rubik B, "Neurofeedback-Enhanced Gamma Barinwaves from the Prefrontal Cortical Region of Meditators and Non-Meditators and Associated Subjective Experiences," *J of Alt Comp Med*, 2010

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FOR CONSIDERATION BY CHILDREN'S MENTAL HEALTH TASK FORCE

FOLDER #5 Fisher Wallace Cranial Electrotherapy Stimulation (CES) Device www.fisherwallace.com

CONTACT Charles Avery Fisher, President and Co-Founder, office 212 688-8100 Fisher Wallace Laboratories, 515 Madison Ave, 22nd Floor, NY, NY 10022

TREATMENT

FDA cleared for treatment of depression, anxiety, insomnia and chronic pain. The Fisher Wallace stimulator is a portable, hand-held device that uses micro-electrical currents with patented frequencies to stimulate the brain's production of serotonin, dopamine, beta-endorphin, GABA, and DHEA while lowering levels of the stress hormone cortisol. Two moistened sponge electrodes beneath a headband are activated by pushing a button powered by AA batteries. The device turns off automatically after 20 minutes. Without side effects or safety concerns, U.S. consumers can purchase a stimulator for home use by simply obtaining a physician's prescription.

BACKGROUND

The son of stereo pioneer Avery Fisher, Charles "Chip" Fisher obtained a BA from Harvard University, worked for IBM, then founded and sold several companies before cofounding Fisher Wallace Labs with the late Dr. Martin Wallace, PhD, CCN, CAd. In 2001, the two men discovered a poorly marketed yet effective FDA sanctioned medical device—the LISS Cranial Stimulator. Wallace had been trapped for eight hours in a building at Ground Zero on 9/11 and unable to find successful treatment for his resulting, acute depression. The LISS delivered relief with no side effects. In 2006, Fisher and Wallace purchased all device patents from Dr. Saul Liss, renaming it the Fisher Wallace Cranial Stimulator.

Extensive research of Cranial Electrical Stimulation, also called Transcranial Electric Treatment (USSR), Neuroelectric Therapy (England), and Electrosleep (Texas), has shown significant improvement among substance abusers for 60 years. See below.

VIDEO Enclosed DVD interview of Mr. Fisher. Numerous videos at www.YouTube.com

COSTS One devise can be used to treat multiple patients by changing electrode sponges. Wholesale cost for 1-100 units, \$395 each; over 100 units, \$295. Replacement sponges, \$39.95 for 48 (a year's supply for individual user)

RESEARCH

- A. Current Research, summarized at www.fisherwallace.com:
- Massachusetts General Hospital (Harvard Medical School), a double blind randomized placebo-controlled clinical trial of CES therapy to improve symptoms of Major Depressive Disorder.
- Boston Children's Hospital (Harvard Medical School). Researchers have combined CES with transcranial magnetic stimulation (TMS) and are conducting a series of preclinical

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experiments aimed to identify CES mechanisms of action by studying its effect on cortical excitability.

- Beth Israel Medical Center, New York City. A single-blind placebo-controlled randomized clinical trial of CES therapy for depressive phase of Bipolar Disorder II, recently completed.
- New York University Medical Center. A pilot study investigating the relationship between attention and emotional function post-TBI to better understand cognitive and autonomic mechanisms of emotional processing.
- University of Maryland. A study of CES effect on reducing depression in Parkinson's patients.
- McLean Hospital (Harvard Medical School). A pilot study of civilian patients with PTSD and its treatment with CES.
- University of Toledo. Pilot study of migraine sufferers and treatment with CES.

B. Published CES Research, summarized at www.fisherwallace.com by category:

- Insomnia
- Depression & Anxiety
- Pain
- Substance Abuse
- Meta-Analysis
- Safety Studies
- Bio Markers Data (Please note article by S. Liss and B. Liss, "Physiological and Therapeutic Effects of High Frequency Electrical Pulses" and the study by C. Norman Shealy, MD, PHD on neurotransmitter production stimulated by CES.)

C. Other research of cranial electrotherapy stimulation:

- David A. Deitch, PhD, et al., "A retrospective chart review of Cranial Electrotherapy Stimulation for clients newly admitted to residential drug treatment," Phoenix House Foundation, NY, 2009
- Ray B. Smith, PhD, "Cranial Electrotherapy Stimulation, Its First Fifty Years, Plus Three, A Monograph," 2006
- M. Krupitsky, et al., "The administration of transcranial electric treatment for affective disturbances therapy in alcoholic patients," Academy of Science, USSR, May 1990.
- Richard Schmitt, PhD, et al, "Cranial Electrotherapy Stimulation Treatment of Cognitive Brain Dysfunction in Chemical Dependence," *J Clin Psychiatry* 45: 60-63, 1984.
- M. A. Patterson, MD, et al., "Treatment of Drug, Alcohol and Nicotine Addition by Neuroelectric Therapy: Analysis of Results over 7 Years," *J of Bioelectricity*, 3(1&2), 193-221, 1984.
- R. B. Smith, PhD, MPA, "Confirming Evidence of an Effective Treatment for Brain Dysfunction in Alcoholic Patients," *J Nervous & Mental Disease*, Vol. 170, No. 5, 1982.
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FOR CONSIDERATION BY CT CHILDREN'S MENTAL HEALTH TASK FORCE

FOLDER #6 Natural supplement brands specifically designed for bipolar patients Individual naturopathic medical treatment of bipolar disorder

CONTACTS

EMPowerplus (Canada) www.truehope.com, (888) 878-3467

Equilib, www.equilib.us, (866) 437-7093

Anne Procyk, Naturopathic Doctor (ND), Third Stone Health, 3 Wildwood Medical Center, Essex, CT, (860) 661-4662, info@ThirdStoneHealth.com

TREATMENT

Bipolar Disorder remains a challenge to resolve because it has a wide variety of causes:

- Severe vitamin, mineral, and essential fat deficiencies, combined with other nutrient imbalances, are common. All Naturopathic Doctors are trained to identify and solve nutrient deficiencies and work to restore the body's innate healing systems. Most can resolve ADHD and depression without using drugs. However, only recent ND graduates or those with a long-standing interest in treating mental illnesses generally accept bipolar, schizophrenic, or autistic patients.
- Four inherited errors cause nutrient deficiencies. Pyroluria, over- and undermethylation, and metal metabolism errors were first identified in the 1960s by Canadian physicians directing a psychiatric hospital. These inherited traits and nutrient remedies are covered in a Task Force folder discussing the research of William J. Walsh, PhD.
- Under-methylation. The amino acid L-Methionine (a methyl donor) in the natural supplements EMPowerplus and Equilib make them effective treatment for 50-65% of bipolar patients who under-methylate. They do not help patients who over-methylate.
- SSRIs are established bipolar triggers, most likely because many reduce methylation, and inherited under-methylation is commonly found among all mental diagnoses.
- Lyme disease may exhibit as bipolar mood swings, especially in children.
- Hormonal imbalances exacerbate and mimic bipolar symptoms. Anyone diagnosed as bipolar (or other mental disorder), should have a thorough physical that includes hormone testing, especially thyroid.
- Emotional trauma, including rape, incest, horrific accidents, and unrelenting stress that can be connected to a bipolar diagnosis are best treated by Emotional Freedom Technique, described in a separate Task Force folder.

This variety of causes, combined with the significant challenge of getting manic patients to follow any regimen, makes doctors specifically trained in Complementary and Alternative Medicine (CAM) a first choice to direct holistic bipolar treatment. I recommend (in order of

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preference): Naturopathic Doctors; Orthomolecular Society members (primarily MDs who embraced CAM treatments); and American College for Advancement in Medicine practitioners (MD, ND, DO, or DCs educated in CAM methods).

BACKGROUND

Truehope, producer of EMPowerplus, was founded by Canadian Anthony F. Stephan, whose wife committed suicide as a result of treatment-resistant bipolar disorder. Searching for a natural cure to help the four of his seven children also diagnosed as bipolar, Stephan developed an effective natural supplement blend in 1996. It restored his children's mental balance and has helped over 90,000 patients thus far. In addition to its proprietary blend of vitamins and minerals, the amino acid methyl donor L-Methionine is included, meaning it specifically helps patients who under-methylate.

Equilib is a variation of EMPowerplus made by Evince International since 1999. According to the company's open label study program, it helps reduce ADHD, Autism, Anxiety, Asthma, Bipolar, Depression, Endometriosis, Fibromyalgia, OCD, Over Active Bladder, PMS/PMDD, Schizophrenia and Tourette's.

Both supplement companies offer patient support via telephone/fax symptom monitoring by trained staff.

Anne Procyk is a Naturopathic Doctor in Essex, CT, experienced in treating mental illnesses holistically. All NDs are trained to eliminate root causes of illness by eliminating toxins, then rebuilding and supporting the body's innate healing systems through dietary and lifestyle changes, natural supplements, herbs, homeopathic and other drug-free therapies. Most NDs easily resolve ADHD and depression, but only those specializing in mental dysfunctions, or having years of experience, accept bipolar patients. Dr. Procyk's background is exceptional. A biochemistry and molecular biology research assistant at Wesleyan University, Research Fellow at Battelle Pacific Northwest National Lab, who graduated Cum Laude with degrees in Chemistry and Medical Ethics from Carleton College, she received a Doctorate of Naturopathic Medicine from the National College of Naturopathic Medicine. As an intern, she treated schizophrenic and bipolar patients with classical homeopathy and nutrition, and later helped treat substance abusers. Chapter 14 of *Healing Depression & Bipolar Disorder Without Drugs*, (enclosed in this folder, p 207) begins with the story of a bipolar woman, who made her first suicide attempt at age 13 and had been on 17 different psychiatric medications over 30 years, before her life was transformed by Dr. Procyk in just 7 months.

VIDEO DVD 55-minute interview, Anne Procyk, ND, "Balancing Bipolar Mood Swings" DVD 55-minute interview, Gracelyn Guyol, "Preventing & Reversing Illness"

COSTS

EMPowerplus, Classic, 228 capsules (57 servings), \$79.98 EMPowerplus, Orange or Berry Powder, 60 servings, \$84.98 Equilib, 228 capsules (57 servings), \$68.98 Equilib, Orange Mix (powder), 25 1-scoop servings, \$44.95

Anne Procyk, ND, is a preferred provider with Aetna, Anthem Blue Cross, Cigna, Connecticare, and HealthyCT; for those paying out of pocket, the fee is \$250 for an initial consultation, \$125 for 25-minute follow up appointments.

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RESEARCH

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FOR CONSIDERATION BY CT CHILDREN'S MENTAL HEALTH TASK FORCE

FOLDER #7Rapid Release of Anxiety and Emotional Trauma using
Emotional Freedom Technique, www.eftuniverse.com

CONTACT Jane Percy, BA, CIH, CHt, EFT Practitioner, Director, Riverlight Wellness Center, Stonington, CT, 860 245-3632

TREATMENT

Emotional Freedom Technique (EFT) releases anxiety disorders, including phobias, and severe emotional trauma resulting from rape, incest, horrific accidents, natural disasters, or war. It is the most well-known form of energy psychology due to its ease of use, speed, and effectiveness. In a critical review in the American Psychological Association's journal, *Review of General Psychology* (Dec 2012), researchers found the protocols utilized "consistently demonstrated strong effect sizes and other positive statistical results that far exceed chance after relatively few treatment sessions." In 2012, the APA approved the Association for Comprehensive Energy Psychology (ACEP) as a provider for continuing education credits in energy psychology. ACEP also provides certification.

EFT involves physically tapping certain energy meridians used in acupuncture (acupoints) while voicing positive affirmations to relieve a specific problem—anxiety, a traumatic event, PTSD, pain, phobia, etc. This process clears blockages along the bioenergy system, helping restore homeostasis. Although EFT is often first performed under the direction of a psychotherapist, hypnotist, or other qualified practitioner, once it is learned, patients can repeat the process as needed.

BACKGROUND

The stimulation of acupoints for psychological therapy began with Roger Callahan's development of Thought Field Therapy in the 1970s and continued evolving. However, three large pilot studies conducted in 2001-2005 still met with strong professional criticism and incredulity because the speed of treatment and success rates far surpassed any previous method. Use persisted due to its success, and several variations exist. The most popular, EFT, was created in the 1990s by Gary Craig, a Stanford engineer specializing in healing and self-improvement. Craig's EFT Manual is available free at http://meridianvitality.com/gary-craigs-eft-manual/.

The limbic system, one of the first parts of the brain to evolve, is the source of *instinctive* emotions and reactions. Because it is an earlier, more rudimentary structure, it reacts more quickly than the rational brain, thus aiding survival. This is why people often become "irrational" in a crisis. Experiences having high emotional impact are preserved in long-term memory to assist handling future threats. As a result, stored feelings and sensations may surface again and again for years. When trauma is experienced very early in life, or repetitively over time, it may be stored out of reach in the subconscious and not be recalled. EFT releases emotional trauma, and if it was repressed, brings it into consciousness where it can be processed in therapy. Samples of recent EFT research are cited below with selected abstracts included in this folder.

EFT therapist Jane Percy is Founding Director of River Light Wellness Center in Stonington, CT, a Certified Intuitive Energy Healer, Certified Brain Trainer (Brain State Technology), with advanced certification in Medical Hypnosis and Hypno-Oncology from the

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National Guild of Hypnotists. Percy's active private practice specializes in medical hypnosis, resilience training, and trauma management for adults and children. She has developed several unique applications of mind-body practices, one a version of EFT she calls Rapid Emotional Freedom Technique. Her new program *Let's Meditate*, designed for K-4 students, teaches meditation as a playful means to greater focus, reduced anxiety, and enhanced resilience.

VIDEOS Two 8-minute videos at http://www.eftuniverse.com/, on Tapping & Veterans. EFT demonstration at http://www.youtube.com/watch?v=IWu3rSEddZI

COSTS Clinical EFT is frequently offered in psychotherapy or hypnotherapy sessions. Prices are lower in rural areas, higher in major cities, between \$60-250/hour. Jane Percy consultations \$150/hour; offsite presentations \$350/half day.

RESEARCH Links to EFT research at http://www.eftuniverse.com/research-studies/research

Abstracts in this folder:

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Palmer-Hoffman J, & Brooks A J (2011). Psychological symptom change after group application of Emotional Freedom Techniques (EFT). *Energy Psychology: Theory, Research, & Treatment*, 2(1), 57-72, doi: 10.9769.EPJ2011.3.1.JPH.

Feinstein D & Church D (2010). Modulating gene expression through psychotherapy. The contribution of non-invasive somatic interventions. *Review of General Psychology*, 14, 283-295.

Rowe J (2005). The effects of EFT on long-term psychological symptoms. *Counseling and Clinical Psychology Journal*, 2(3), 104-110.

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FOR CONSIDERATION BY CT CHILDREN'S MENTAL HEALTH TASK FORCE

FOLDER #8 ADDICTION RECOVERY

CONTACTS For detox and withdrawal:

ACACD Auriculotherapy (Ear Nerve Stimulation), American College of Addictionology and Compulsive Disorders, www.acacd.com

To rebuild neurotransmitters & halt cravings for sustained abstinence: SynaptaGenX amino-acid therapy (oral delivery for outpatient; IV plus oral for inpatient), developed by Kenneth Blum, PhD, www.synaptagenx.com, 800 614-7714

TREATMENTS

The American College of Addictionology and Compulsive Disorders (ACACD) and National Acupuncture Detoxification Association (NADA) have long-established protocols that ease detoxification and withdrawal, reduce substance cravings, raise program compliance, and relax patients by triggering feel-good endorphins in the brain. The NADA protocol employs fine stainless steel needles placed under the skin for 45-60 minutes at five outer ear points. ACACD's **auriculotherapy** protocol is preferred due to its use of a battery powered micro-current device instead of needles to stimulate *nerve endings* on the surface of the auricle (outer ear). This "microsystem" is the most direct neurological connection between ear and brain, requiring only 10-20 minutes per session. Neither protocol is considered a "stand-alone" solution, however. Once treatments cease, the patient's sense of well-being fades, and relapse is likely without amino acid therapy.

Amino acids are natural proteins contained in foods the body requires to make brain neurotransmitters. Two leading holistic clinicians have used amino acid and natural nutrient protocols to successfully treat addictions since the 1980s. Joan Mathews Larson, PhD, wrote *Seven Weeks to Sobriety* and opened Health Recovery Centers in Minneapolis in 1981 after the suicide of her son. Julia Ross, MA, MFT, author of *The Mood Cure*, developed dietary and amino acid treatment programs for addicts in the San Francisco area prior to establishing a Mill Valley facility in 1988, now called Nutritional Therapy Institute Clinic. Both clinics found the *two main causes of addiction* were 1) inherited, stress-triggered nutrient deficits and 2) inherited blood-sugar dysregulation, made worse by a junk food diet. Other physical causes were low thyroid function, stress/adrenal burnout, unbalanced sex hormones, digestive dysfunction, and toxic overload. Dietary changes combined with amino acid nutrient blends brought solid improvements. One study of 100 patients three years after treatment at Health Recovery Centers showed 75% remained clean and abstinent versus 3-20% sustained abstinence from 12-Step programs.

BACKGROUND

Kenneth Blum, PhD, has been the top addiction researcher for a half century. He too blames inherited traits and amino acid deficits for patients' overwhelming cravings. A graduate of Columbia University College of Pharmacy and New Jersey College of Medicine, with a PhD in Neuropharmacology from New York College of Medicine, Blum has authored 400 published

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articles and 11 books. In 1989, Blum and colleague Ernest P. Noble, PhD, discovered the first gene associated with severe alcoholism (JAMA April 1990). At University of Texas in 1972-1995, he proposed and researched a stream of then-novel concepts, including 1) alcohol craving is related to neurotransmitters and 2) dopamine can block withdrawal from alcohol. Abstracts enclosed chronicle Blum's research and development of numerous amino acid-based supplements since 1988: Tropamine, SAAVE, Kantroll, Synaptose, Synaptamine Complex (KB220 and KB220Z), Neuroaadaptagen Amino-Acid Therapy (NAAT), and the latest, SynaptaGenX.

SynaptaGenX is a patented composition of natural, 'neuroadaptagen' amino acids designed to regulate cravings, support optimum brain health, promote neurotransmitter balance, focus, and cognition, while increasing energy and reducing stress. Years of research has revealed the brain reward cascade to be a sequence of neurotransmitter actions that begin with serotonin and culminate with dopamine. The majority of people struggling with addictions have a dopamine deficiency and/or receptivity, often along with polymorphisms (gene variations) that upset this cascade, creating irresistible cravings. Long-term abstinence rates for SynaptaGenX are not yet available, but numerous studies show earlier variations increase dopamine sensitivity, reduce relapse rates, and increase sustained recovery. (See Chen *Adv in Ther* 2007 abstract and *IIOAB Letters*, p. 15, enclosed.)

COSTS Auriculotherapy: \$75 per individual session; group session depend on group size

SynaptaGenX IV supplements, (wholesale prices requested) SynaptaGenX oral supplements (30 day supply), retail \$120, (wholesale prices requested)

VIDEOS

Intro to Auriculotherapy, Part 1 (10 min.) http://www.youtube.com/watch?v=Wd6y3dfyOyA

Dr. Stokes on amino acids and auriculotherapy for addiction (10 min.) http://www.youtube.com/watch?v=B8Qr339uFIY

TV news feature, Addiction & Genetics with Dr. Blum (3 min.) http://www.youtube.com/watch?v=-SDotgtv1mM

Dr. Blum, Post Grad Med. Journal, amino acid therapy study (8 min.) http://www.youtube.com/watch?v=FyzSp-_6M3s

RESEARCH - Auriculotherapy (6-page summary at www.auriculotherapy.com/research)

Blum K, et al (2011) Hypothesizing Synergy between Acupuncture/Auriculotherapy and Natural Activation of Mesolimbic Dopaminergic Pathways: Putative Natural Treatment Modalities for the Reduction of Drug Hunger and Relapse. *IIOAB Letters* 1:8-20. (Text in folder)

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Holder J, Blum K, et al (2001) Increasing retention rates among the chemically dependent in residential treatment: auriculotherapy and subluxation-based chiropractic care. *Molec Psychiatry* 6:S8.

RESEARCH - Amino acid addiction treatment, text/abstracts enclosed in folder:

Blum K, et al (2012) Neurogenetics and Nutrigenomics of Neuro-Nutrient Therapy for Reward Deficiency Syndrome (RDS): Clinical Ramifications as a Function of Molecular Neurobiological Mechanisms. *J Addict Res Ther* 3:139. doi: 10.4172/2155-6105.1000139

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Miller D K, et al (2010) Acute Intravenous Synaptamine Complex Variant KB220 "Normalizes" Neurological Dysregulation in Patents During Protracted Abstinence From Alcohol and Opiates as Observed Using Quantitative Electroencephalographic and Genetic Analysis for Reward Polymorphisms: Part I, Pilot Study with 2 Case Reports. *Postgrad Med*, Vol 122, Issue 6, November.

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Chen J H, (2007) Gene Narcotic Attenuation Program attenuates substance use disorder, a clinical subtype of reward deficiency syndrome. *Adv in Ther*, Vol 24, Issue 2, pp 402-414, March/April.

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DeFrance J F, et al (1997) Enhancement of Attention Processing by Kantroll in Healthy Humans: A Pilot Study. *Clin Electroencephalography*, Vol 28, No 2.

Blum K, (1988) Improvement of Inpatient Treatment of the Alcoholic as a Function of Neurotransmitter Restoration: A Pilot Study. *Int J of Addict*, 23(9), 991-998.

Blum K, et al (1988) Reduction of both drug hunger and withdrawal against advice rate of cocaine abusers in a 30-day inpatient treatment program by the neuronutrient Tropamine. *Cur Ther Research*, Vol 43, No 6, June.

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FOR CONSIDERATION BY CHILDREN'S MENTAL HEALTH TASK FORCE

FOLDER #9 Homeopathy Treatment for All Mental Disorders www.homeopathic.com

CONTACTS Iris Bell, MD, PhD, info@irisbell.com

Dana Ullman, MPH, CCH, www.homeopathic.com

TREATMENT

According to the World Health Organization, homeopathic treatment is the largest Complimentary & Alternative Medicine (CAM) utilized throughout the world due to its low cost, safety, effectiveness, and ease of use by patients. Homeopathic treatments are covered by the national health care systems of India, Mexico, Cuba, and Brazil.

Classical homeopathy utilizes only one "remedy" (medicine) at a time. Although dietary and lifestyle changes are often recommended as well, they are not required. If psychiatric medications are currently being taken by the patient, they are continued along with the homeopathic remedy until the medications are no longer needed. A major convenience of homeopathy is that patients are required to do little beyond taking the remedy.

Treatment begins by obtaining a detailed medical history and observing a patient's unique personality, likes and dislikes. Such details enable the practitioner to select one specific homeopathic remedy they believe will best resolve both physical and behavioral problems. Doses may be adjusted or new remedies tried until a positive response is evident. Improvements often occur immediately or may take several months or years to achieve maximum benefits.

BACKGROUND

Homeopathy was created in the 1790s by Christian Frederich Samuel Hahnemann in Germany. Fluent in nine languages, he began medical studies at age 20 and translated scientific texts for income. At 29, he abandoned the common medical practices of induced vomiting, diarrhea, bleeding, using opiates and toxic doses of mercury, adopting Hippocrates's directives. This lead Hahnemann to develop a "Law of Similars," which holds a substance that *causes* symptoms similar to those of a disease state, can *cure* a sick person of that disease. Testing hundreds of substances for these responses, later called *provings*, became Dr. Hahnemann's life work, and the basis of homeopathic remedies. Made from natural mineral, plant, or animal substances, remedies are highly diluted with water through a process called *potentization*.

More successful than most 19th century medicines, homeopathy grew rapidly. The American Institute of Homeopathy, founded in 1844, was the first medical association in the US, There were 20 US homeopathic medical schools before antibiotics lead the way to pharmaceutical dominance. Part of this was due to scientific controversy over the high dilution of homeopathic remedies. Using biochemical assays, not one molecule of the original bulk substance could be found in the remedies. Thus, many doctors believed health improvements must be from the placebo effect.

In 2010, Dr. Jayesh Bellare, of the Indian Institute of Technology, noticed homeopathic medicines were manufactured in a process similar to modern techniques for producing

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nanoparticles. With colleagues, he investigated six different commercially made homeopathic remedies using sophisticated electron microscopes and laboratory tests. Research revealed original source material was present in remedies in *nanoparticle forms* at 6C, 30C, and 200C dilutions. At above 12C, no source material should have been present, yet it was—a stunning revelation that has quickly broadened scientific interest and research in homeopathy.

The enclosed study, "A model for homeopathic remedy effects" by Dr. Iris Bell proposes nanoparticle remedies act by modulating biological function of the allostatic stress response network, (including cytokines oxidative stress and heat shock proteins, as well as immune, endocrine, metabolic, autonomic and central nervous system functions), which turns on complex adaptive responses promoting resilience and recovery from disease.

Iris Bell, MD, PhD, is a psychiatrist, university professor, and a researcher in CAM medical areas for 30 years. Bell has served on the faculties at Harvard Medical School, University of California San Francisco, and the University of Arizona. She graduated magna cum laude in biology from Harvard University and received her PhD in Neuro- and Biobehavioral Sciences and MD from Stanford University. She is Board certified in Psychiatry with Added Qualification in Geriatric Psychiatry and licensed to practice conventional medicine in Arizona and California. Nationally certified in biofeedback, Bell is a fellow of the American College of Nutrition and licensed to practice homeopathy/alternative medicine in Arizona.

Dana Ullman, MPH, CCH, is certified in classical homeopathy and one of its leading advocates. The author of 10 books, Ullman is founder of Homeopathic Educational Services, a resource center for homeopathic information and correspondence courses, which has copublished over 35 books on homeopathy with North Atlantic Books. He is author of an e-book, *Evidence Based Homeopathic Family Medicine*, a continually growing resource to 200+ clinical studies published in peer-review medical journals testing homeopathic medicines. The e-book combines descriptions of these studies with practical clinical information on how to use homeopathic medicines for over 100 common ailments.

VIDEO Dr. I. Bell at http://www.youtube.com/watch?v=wYO6nNQGe1M (9 min.)

BOOKS:

The most comprehensive book, *Homeopathy and Mental Health Care, Integrative Practice, Principles and Research* (2010), has chapters authored by leading homeopathic practitioners around the globe. A copy of the Chapter on ADHD by Judyth Reichenberg-Ullman, ND, is enclosed in this folder.

Ritalin Free Kids and *Rage Free Kids*, two books by Judyth Reichenberg-Ullman, ND, and Robert Ullman, ND, contain discussions of the leading homeopathic remedies for hyperactivity and its various syndromes.

COSTS

Initial 60-90 minute visit: MD homeopath, \$100-300; other homeopaths \$50-250 15-45 minute follow-up visit: MD \$50-100; other homeopaths \$30-80. One homeopathic remedy averages \$4-10 per bottle See *Society of Homeopaths* article, "Economic evaluations" enclosed in this folder; also abstract of study by Elio, et al. "Cost-benefit evaluation..." in research below.

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RESEARCH

Full Text:

Bell IR, Koithan M, (2012) A model for homeopathic remedy effects: low dose nanoparticles, allostatic cross-adaptation, and time-dependent sensitization in a complex adaptive system. *BMC Complementary & Alternative Medicine*, 12:191. doi 10.1186/1472-6882-12-191

Society of Homeopaths, Evidence Base for Homeopathy, "Economic Evaluations."

Abstracts:

Elio R, et al (2009) Cost-benefit evaluation of homeopathic versus conventional therapy in respiratory diseases. *Homeopathy* 98, 2-10

Olioso D, et al (2014) Effects of Gelsemium sempervirens L. on pathway-focused gene expression profiling in neuronal cells. *J Ethnopharmacol*, April 28:153(2):535-9. doi: 10.1016/j.jep.2014.02.048. Epub 2014 Mar 5.

Luigi C, et al (2013) Effect of a homeopathic-complex medicine on state and trait anxiety and sleep disorders: a retrospective observational study. *Homeopathy*, Vol 102, Issue 4, 254-261, October.

Bell IR, et al (2013) Adaptive network nanomedicine: an integrated model for homeopathic medicine. *Front Biosci (Schol Ed)*, Jan 1;5:685-708.

Davidson JR, et al (2011) Homeopathic treatments in psychiatry: a systematic review of randomized placebo-controlled studies. *J. Clin Psychiatry*, Jun;72(6):795-805. doi: 10.4088/JCP.10r06580.

Ullman D (2011) Homeopathic aid for ADHD, which is becoming more prevalent. *Hpathy Ezine*, Jun 9.

Marcin Molski (2010) Quasi-quantum phenomena: the key to understanding homeopathy. *Homeopathy*, Vol 99, Issue 2, 104-112, April.

Prashant SC, et al (2010) Extreme homeopathic dilutions retain starting materials: A nanoparticulate perspective. *Homeopathy*, Vol 99, Issue 4, 231-242, October.

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Linde K, et al (1997) Are the clinical effects of homeopathy placebo effects? A meta-analysis of placebo-controlled trials. *Lancet*, Sep 20;350(9081):834-43.

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FOR CONSIDERATION BY CT CHILDREN'S MENTAL HEALTH TASK FORCE

FOLDER #10 - Recovery From and Prevention of Violent Behavior Using:

- Safe psychiatric drug withdrawal
- Laboratory testing for inherited biochemical imbalances that cause aggression,
- violence, mania
- Specific natural supplements for restoring nutrient balance to stabilize mood, behavior, and long-term recovery

CONTACTS

Peter R. Breggin, MD, private practice, Ithica, NY, 607 272-5328. A Harvard-trained psychiatrist and former full-time consultant with NIMH, Dr. Breggin is known as the "Conscience of Psychiatry" for 50 years of advocating psychiatric reform and protecting children from psychiatric abuse. Breggin spearheaded a campaign against lobotomy and psychosurgery in the 1970s, against shock treatment in 1979, alerted professionals to the risk of tardive dyskinesia from neuroleptic or antipsychotic drugs, caused cancellation of federally proposed experiments on inner-city children in search of supposed genetic and biochemical causes of violence, and was the first psychiatrist to expose the risks of violence and suicide from new SSRI antidepressants in the 1990s. He is the author of more than 20 books, including the best-seller *Talking Back to Prozac*; *Medication Madness, the Role of Psychiatric Drugs in Cases of Violence, Suicide and Crime*; and his latest, *Psychiatric Drug Withdrawal, a Guide for Prescribers, Therapists, Patients and Their Families.* Since 1964, Breggin has also published peer-reviewed articles and medical books in his subspecialty of clinical psychopharmacology, writing about the FDA, drug approval process, and evaluation of clinical trials.

Dr. David Healy, is an internationally respected psychiatrist, psychopharmacologist, scientist, and author. A professor of Psychiatry in Wales, Healy studied medicine in Dublin and at Cambridge University. His main areas of research are clinical trials in psychopharmacology, the history of psychopharmacology, and the impact of both on our culture. He has been an expert witness in homicide and suicide trials involving psychotropic drugs and in bringing problems with these drugs to the attention of American and British regulators. A former Secretary of the British Association for Psychopharmacology, Healy has authored more than 150 peer-reviewed articles, 200 other pieces, and 20 books, including *The Antidepressant Era*; *The Creation of Psychopharmacology*; and *Mania*. His latest, *Pharmagedon* (2013), documents how pharmaceutical companies have hijacked healthcare in America. Healy's 2006 paper, "Antidepressants and Violence: Problems at the Interface of Medicine and Law," is in this folder.

William J. Walsh, PhD, Director of Walsh Research Institute, 1155 South Washington St, Naperville, IL, 630 400-3400. Dr. Walsh is an internationally recognized expert in the field of nutritional medicine. After obtaining degrees from Notre Dame, the University of Michigan, and a Ph.D. in chemical engineering from Iowa State University, he began work at Argonne National Laboratory in the 1970s. There he organized a prison volunteer program that led to studies of prisoners and ex-offenders, researching the causes of violent behavior. Walsh later conducted chemical analysis of more than 25 serial killers and mass murderers, including

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Charles Manson, Richard Speck, and James Oliver Huberty, and assisted medical examiners, coroners, Scotland Yard, and FBI in these forensics studies. Walsh founded a private research foundation, and in collaboration with the late Carl Pfeiffer, MD, PhD, went on to create a non-profit clinic in 1989, treating and studying more than 30,000 patients. Under Dr. Walsh's direction, the clinic developed drug-free biochemical treatments for behavioral disorders, attention deficit hyperactivity disorder, autism, depression, anxiety disorders, schizophrenia and Alzheimer's disease that are now used internationally. His new book was written for patients and practitioners: *Nutrient Power, Heal Your Biochemistry and Heal Your Brain* (2012). Author of numerous articles and scientific reports, Walsh has received five patents, and presented research at the American Psychiatric Association, U.S. Senate, and National Institute of Mental Health.

Michael B. Schachter, MD, Director, Schachter Center for Complementary Medicine, Suffern, NY, 845 368-4700. A Board Certified Psychiatrist and Certified Nutritional Specialist, Dr. Schachter graduated magna cum laude from Columbia College and received a MD degree from Columbia College of Physicians and Surgeons in 1965. Recognizing the relationship between health, nutrition, and the environmental impact upon disease, he has successfully treated thousands of patients using orthomolecular psychiatry, nutritional medicine, chelation therapy, and holistic cancer therapies for over 30 years. Schachter was President of the American College for Advancement in Medicine and past President of the Foundation for the Advancement of Innovative Medicine (FAIM). He was a major contributor to *Alternative Medicine's Definitive Guide to Cancer* (1997) and authored *The Natural Way to a Healthy Prostate* and *What Your Doctor May Not Tell You about Depression* (2006). DVDs of Dr. Schachter's TV interviews on "Preventing & Managing Violent Behavior," Parts I & II, are enclosed in this folder.

TREATMENT

Holistic Medicine treats the underlying biochemical *causes* of violence, with a goal of restoring the brain/body's innate ability to heal and recover. Research shows the following contribute to behavior disorders, violence, suicide, and crime:

- **Psychiatric medications**, especially the newer SSRIs, may trigger suicide and violence, especially during start-up and withdrawal. Akathisia, the neurological inability to sit still from taking Paxil, Prozac, Zoloft, and Celexa, is another side effect leading to suicide and violence.
- Malnutrition early in life impacts brain development, predisposing cognitive deficits that in turn cause behavior problems throughout childhood and adolescence.
- **Pyroluria** is an inherited condition that depletes a patient's zinc and vitamin B6 levels, allowing copper levels to rise. Elevated copper causes aggression, violence, and mania.
- **Hypoglycemia** (low blood sugar), is an inherited trait that can fuel anger, aggression, and violence. **Junk food diets** low in nutrition and high in sugar, simple carbohydrates, processed foods, and additives, also create hypoglycemia, resulting in fatigue, inability to focus or think clearly, anxiety, anger, aggression, and inexplicable rage.
- Environmental toxins can turn genes "off" and "on" inappropriately, disrupting brain development, cognitive functions, learning, behavior, and mood.

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Psychiatric Medications

SSRIs antidepressants are well-known for causing mania, psychosis, hostility, aggression, and suicidal thoughts. Many experts believe homicide should be added to the list. Between 20004 and 2011, US FDA Medwatch received 11,000 reports of psychiatric drug side effects related to violence: 300 cases of homicide, 3,000 cases of mania, 7,000 cases of aggression, and it is estimated only 1-10% of side effects are ever reported. US labels for all antidepressants were required to caution against these and other side effects in 2004. In the European Union and ten other countries, antidepressants have received 99 drug regulatory agency warnings.

Beginning or halting use of psychiatric drugs has been implicated in most US school shootings occurring from 1988-2006, according to Citizen's Commission on Human Rights. The majority of shooters were using SSRI antidepressants. (See enclosed Walsh's" Proposal for Prevention of School Shootings," for the drugs involved.)

The problem begins when a child is placed on psychiatric medications, often for minor issues, but remains on them for the rest of their life, regardless of whether symptoms improve. Once the brain becomes accustomed to these powerful medications, it becomes dependent on them, much as it does on heroin, opium, and other street drugs. To withdraw abruptly is physically dangerous.

Unfortunately, doctors are not taught how to *safely* take patients off the drugs. They know many psychiatric medications are highly addictive and withdrawal is time-consuming, complicated, and risky. So when one does not help a patient, they switch them to a different brand in hopes it will work. Often it seems to, for a few weeks or months, until the brain adapts to it and becomes ineffective. Multiple drugs, known as "cocktails," are prescribed, despite never having been tested or approved for use in combinations. Many children take whatever is prescribed. Others hate "feeling like a zombie" and stop taking their meds without telling anyone, often with tragic results.

Yet another unaddressed problem is that the child may not have anyone to tell who can help. According to NIH, there are an estimated 80-117 million mental patients in the US and only 156,300 mental health practitioners, *leaving 89 million patients in "professional shortage" areas.* In spite of \$113 billion spent in 2012, <u>45-55% of mental patients remained untreated.</u> Half say they cannot afford treatment. Of the 15.7 million who are treated, 25% pay between \$100-5,000 out of pocket.

Solving this complex problem will require strong leadership, agency collaboration, and years of effort in order to:

- 1. retrain psychiatrists, and the 70% of "other" psychiatric medication prescribers, on how to safely withdraw children from psychiatric drugs and add effective, holistic treatment options to their practice.
- 2. **develop a "failsafe" school system** for reporting students experiencing mental problems who are struggling, being treated, yet not improving, that will enable prompt private screening and closely monitored treatment.
- 3. require better insurance coverage for mental illnesses—including coverage of natural supplements required to compensate for common *inherited causes* (discussed below), thus ensuring long-term mental stability and ability to function.
- 4. **boost pay for mental health practitioners** to help attract hundreds more medical students into this profession and reverse the professional shortage trend since mental illness strikes one out of four people world-wide.

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Malnutrition Early in Life

Research below, by Jianghong Liu, PhD, RN, FAAN, Associate Professor of Nursing at University of Pennsylvania, is concerned with early health risk factors, including how nutrition and environmental toxicity (e.g. lead and tobacco exposure) influence emotional and behavioral development in children. Results indicate malnutrition at age 3 predisposes to neurocognitive deficits, which in turn predispose to persistent behavior problems (antisocial and aggressive behavior) throughout childhood and adolescence.

The present school meals movement away from processed, high caloric, low nutritional food sources to whole, fresh foods is on-track and an essential starting point. How to improve nutrition for pregnant mothers, infants, and children below school age should also be discussed by this Task Force.

Pyroluria

Pyroluria was discovered by two psychiatrists running a Canadian mental hospital in the 1960s. First thought to be a Kryptopyrrole molecule, it was later identified as hydroxyhemoppyrrolin-2-one (OHHPL), a byproduct of hemoglobin synthesis. At that time, pyroluria was found in 10% of the general population, 18% of bipolar patients, 20% having depression, 27% of schizophrenic patients, and 20% with autism.

This inherited abnormality causes production of excess OHHPL, which binds with zinc and vitamin B6 before being excreted in urine, thus creating a deficiency of vital nutrients. Vitamin B6 is required for production of 2,000 different enzymes involved in digestion and metabolism that fuel the brain. Zinc is needed for production of over 60 digestive enzymes, as well as for detoxification of metals and fighting brain inflammation. More importantly, in the body zinc and copper hold each other in balance. Depleted zinc allows copper levels to rise, causing people to become argumentative, anxious, manic, or moody, with poor stress control and explosive anger. Treatment involves taking higher-than-normal levels of zinc and B6 daily, along with vitamins C and E.

Hypoglycemia (low blood sugar)

As blood sugar (glucose) levels drop, people begin to feel anxious or depressed. As it drops lower, the lack of glucose to the brain causes irritability, anger, aggressiveness, and violence. A junk food diet—simple sugars from alcohol, sweets, refined starches, or caffeinated soft drinks—quickly elevate blood sugar levels, bringing temporary relief. However, in some people, blood sugar levels may then drop abnormally low, triggering mean, angry, and combative behavior. One prime example: in the US, 50% of homicides and 40% of assaults are alcohol related; between 75-90% of alcoholics are hypoglycemic (E. Cheraskin, MD). Health Recovery Center, a holistic alcohol treatment clinic in Minnesota, also found 88% of 100 randomly selected clients had blood-sugar dysregulation, normally treated with 200 mcg per day of chromium.

Environmental Toxins.

Chemical use rose dramatically following World War II. How this is impacting children is revealed by Environmental Working Group's latest tests of umbilical cord blood taken from 10 randomly chosen newborns: it contains 300 dangerous chemicals! A fetus shares the mother's toxic load and then adds more during their own life. Thus, each generation carries a heavier

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toxic load. Today's "epidemic" of mental disorders is one indication we may have reached a "Tipping Point" of toxicity that children's small mass and not-fully-developed internal systems simply cannot handle.

The rise in neurodevelopmental disabilities and cognitive impairments has been linked to industrial chemical pollution for over 20 years, yet little has been done to reduce the flow. In this folder is a 1999 Plenary Address by Roger D. Masters, long-time researcher and head of Dartmouth Foundation for Neuroscience and Society, that describes how just one chemical category— heavy metals—compromises normal brain development and leads to hyperactivity and criminal behavior. Masters' 2009 article, "Toxins, Brain Chemistry, and Behavior," also enclosed, describes how the body's toxic load contributes to violence.

In 2014, six neurotoxicants were added to five previously identified as damaging: lead, methylmercury, polychlorinated biphenyls, arsenic, toluene, manganese, fluoride, chlorpyrifos, dichlorodiphenyltricholoroethane, tetrachloroethylene, and the polybrominated diphenyl ethers (*Lancet*, March). Researchers say, "Untested chemicals should not be presumed to be safe to brain development, and chemicals in existing use and all new chemicals must therefore be tested for developmental neurotoxicity."

Yet in Connecticut a majority of politicians do not support the "no-brainer" of banning______ pesticide use on school playgrounds! A strong, parent/voter grass-roots movement for childprotective chemical regulation in Connecticut appears to be the only hope for significant change.

COSTS Unable to estimate until a plan is created.

VIDEOS

- Anti-psychiatric drug info: http://www.globalhealingcenter.com/natural-health/12-shocking-facts-psychiatric-drugs/ (3 hours)
- Low zinc & B6 http://www.youtube.com/watch?v=IGE5MLPRRjU (1.5 min)
- High copper, increased risk of anxiety, sleep disorders, panic, schizophrenia, and bipolar http://www.youtube.com/watch?v=khgHYb93Ijs (1.5. min)
- Pyoluria: http://www.youtube.com/watch?v=gfIzSelaRSI (11 min)
- Environmental toxins : http://www.ewg.org/news/videos/10-americans (22 min)
- CDC Enviro Chemical Exposure Report on toxins in pregnant women http://www.youtube.com/watch?v=SZ3TfFI-c3k (2.5 min)

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