

The Impact of Improper Medical Diagnosis on Learning

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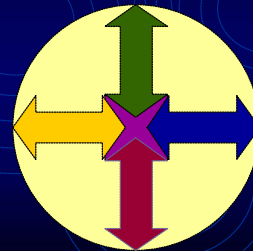
Sharper Mind Centers is a network of wholly owned office and licensed authorized providers that offers the Sharper Minds Program to individuals and families dealing with, attention, focus, reading problems & cognitive disorders.

Sharper Mind Centers specialize in:
1. Comprehensive and Accurate Evaluations of processing disorders.
2. A robust cognitive rehabilitation program.

Goals and Objectives

- Understand the importance of thorough medical and psychological evaluations.
- Learn about the various conditions that can impair the ability to learn.
- Gain awareness of how to better advocate for yourself and/or your child(ren).
- Gain some insight into the various sub-specialties of medicine.

We are integrated human beings.



Case study #1

- 10 year-old female
- Frequently found with her head on the desk, sometimes napping.
- Difficulty sustaining attention,
- Impaired concentration,
- Low energy
- Seemed to have adequate intelligence
- Makes careless mistakes
- Cheerful, eager to please, doesn't seem anxious
- Easily distracted
- Sister is "A" student

CS #1 Hypoplastic Left Heart

- In hypoplastic left heart syndrome, the left side of the heart -- including the aorta, aortic valve, left ventricle and mitral valve -- was underdeveloped.
- She had 3 corrective surgeries and was considered optimized medically.
- The teacher pushed her parents to place her on Ritalin to "help wake her up, focus and concentrate" as she "clearly" had ADD.

Hallmarks of ADD/ADHD

- Inattention
- Impulsivity
- Hyperactivity
- Symptoms present before age seven and in 2 or more settings
- Clear evidence of significant impairment
- NO PDD, Schizophrenia etc.



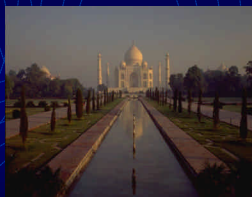
The Diagnostic Challenge

- Symptoms
- Diagnosis
- Treatment



Diarrhea

- Symptoms of diarrhea, fever
- Diagnosis = Diarrhea
- Treatment = Imodium, clear liquid diet, anti-emetic if nauseated
- What's wrong with this?

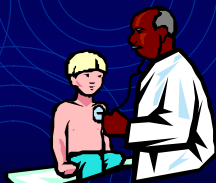


What Determines Treatment?

- Underlying Cause?
- Symptoms?
- Diagnosis?
- Multiple underlying causes of diarrhea. At least one for every letter of the alphabet – plus.
- Underlying cause of the symptoms MUST determine treatment, not the symptoms or diagnosis.

How are most diagnoses of ADHD made?

- A teacher or “friend” suggestion
- A brief interview and observation by MD
- Rarely is there a complete history, blood work and neuropsychological evaluation.



ADD, ADHD - An Epidemic Diagnosis

- 5 million children ages 3 to 17 are diagnosed with a L.D., 4 million with ADHD. Center for Disease Control & Prevention (CDC) report from their 2002 National Health Interview Survey, published in 2004.
- 2 to 3 million children are on medications such as Ritalin or Adderall.
- 10% to 4% ratio of boys to girls
- Precipitator is behavioral symptoms or poor academic performance

ADD, ADHD - An Epidemic Diagnosis

- An estimated 8 million adults have ADD.
- Only about 5% of adults with ADD are being treated for their ADD.
- Many adults have found coping mechanisms that work for them, or they self-medicate.
- Precipitator for treatment is often relationship and/or work problems.

What Causes ADD/ADHD?



1. There is no evidence that ADD/ADHD is a single disease with a single cause.
2. If #1 is true, then it follows that not all, or even most cases of ADD/ADHD should be treated with stimulants.

Underlying Causes of the Symptom of Inattention

- Traumatic brain injury
- A lack of bilaterality
- Emotional stress or trauma
- Genetic factors, arrested development
- Maternal smoking
- Fetal Alcohol Effect or Syndrome
- Dyslexia or other cognitive problem(s)
- Birth complications/hypoxia
- Nutritionally deficient diet, food allergies, sensitivities
- Ineffective Parenting
- Environmental toxicity – heavy metals
- Poor behavior emulation
- Mixed brain dominance
- Stimulants
- Genetic or medical issues
- Infections/antibiotics

Underlying Causes of the Symptom of Hyperactivity

- Brain tumors (early stage)
- Lead toxicity
- Pesticide poisoning
- Diabetes
- Congenital heart defects
- Infections (viral, bacterial, parasites, worms)
- CO poisoning
- Traumatic brain injuries
- Allergies
- Genetic disorders,
- Seizure disorders (Petit Mal)
- Other heavy metal toxicity (mercury or manganese, . . .)
- Normal high energy kid

Persons labeled with ADHD are more likely to:

- Drop out of high school
- Be under or unemployed
- Be incarcerated (20 X)
- Engage in anti-social behavior
- Have social and/or marital problems
- Try drugs and alcohol



How Dietary Factors Affect Learning and Behavior

1. Insufficient calories, insufficient nutrition.
2. Sufficient calories, insufficient nutrition.
3. Sufficient calories, sufficient nutrition, adverse food reactions.
4. Ingestion of neurotoxins. (MSG, Aspartame)
5. Lifestyle habits that sabotage the immune system.
6. Universal dietary factors.

Allergy and Immunology Causes of ADD/ADHD

- Food sensitivities can cause behavior and learning problems, directly or indirectly. Because the reaction is typically delayed, there is not an apparent connection between the diet and the behavior or learning problem.
- Food allergies cause behavior problems indirectly. Because the reaction is within seconds to hours, there is an obvious connection.

Common signs and symptoms of a true food allergy

- Hives, itching, eczema
- Swelling of the lips, face, tongue, throat, or other parts
- Watery itchy eyes
- Wheezing, nasal congestion, coughing, sneezing or trouble breathing, pneumonia
- Abdominal pain or cramps, diarrhea, nausea, vomiting
- Dizziness, lightheadedness, fainting

Common signs and symptoms of a true food allergy (continued)

- Tingling sensations in the mouth
- Migraines, headaches
- Muscles aches and joint pains
- Lymph node swelling
- “Allergic shiners” (dark circles under the eyes)
- Shock – rapid heart rate, a drop in blood pressure and cardiovascular collapse.

Manifestations of Food Allergies in Infants and Young Children

- Crying, “colic”
- Vomiting, diarrhea, GERD, dysphagia
- Itchy skin, rashes: eczema, urticaria, angioedema,
- Cold-like respiratory symptoms: nasal congestion, coughing, sneezing, wheezing, asthma
- Failure to thrive or poor growth
- Picky eaters

Symptoms of Food Intolerance or Sensitivity

- General: tiredness or fatigue, lethargy or malaise, insomnia, bed-wetting, PMS, RLS, leg pains, cravings addictions
- Neurologic: Migraines, headaches, pain, tics, dizziness



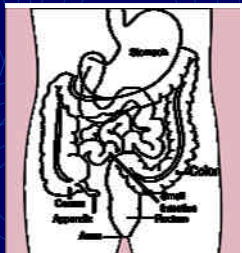
Symptoms of Food Intolerance or Sensitivity, cont.



Psychiatric: impaired memory, difficulty concentrating, inattention, depression, anxiety, other mood disorders (e.g. irritability, moodiness), hyperactivity, autistic spectrum disorders, nightmares, night terrors, impulsivity, aggressiveness, rage/anger, tantrums, wilting, withdrawal

GI causes of Behavioral and Growth Problems

- Medical research has shown that gastrointestinal ("GI") problems are commonly described in persons with psychiatric, neurologic and developmental disorders.
- Common GI diseases include: Celiac disease, ulcerative colitis, Crohn's disease, IBS, GERD



Case Study #2

- 24 year old female graduate student
- Difficulty concentrating, difficulty focusing
- Low energy, sleeping 12 hours a day
- Flat affect, loss of interest in extracurricular activities
- Passing, but struggling with classes
- Sometimes slurred speech
- Hair loss and other vague complaints

CS #2 Hashimoto's Thyroiditis

- Her professor asked what disease she was studying this week.
- Without taking a history, doing any blood work or even a physical, the attending physician recommended she see a psychiatrist for her "depression."
- After being correctly diagnosed and treated appropriately, she completed graduate school in the top half/middle third of her class.

Endocrinologic causes of ADHD

- Hyperthyroidism can cause fear, hostility, fainting, demanding hypercritical behavior.
- Hypothyroidism can cause depression, fatigue, irritability, poor memory.
- Diabetes can result in fluctuating moods and energy levels.
- Adrenal dysfunction can result in hypersexual behavior, headaches, fainting.

Case Study #3

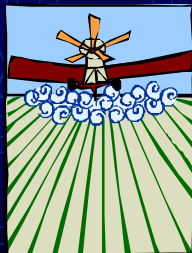
- 8 year old third grade boy who is irritable
- Alternates between hyperactivity and lethargy
- Uncoordinated
- Complains of frequent headaches and stomachaches, decreased appetite
- Decreased play

CS #3 Lead Poisoning

- Most children with lead poisoning are asymptomatic.
- GI symptoms include: anorexia, constipation, abdominal pain, colic, vomiting, failure to thrive and diarrhea
- Neurologic symptoms include: irritability, over-activity, lethargy, decreased play, increased sleep, ataxia, incoordination, headache, decreased nerve seizures, cranial nerve paralysis, coma,

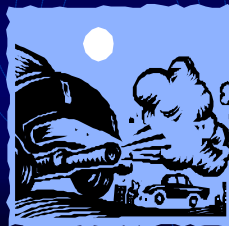
Environmental Causes of ADHD

- Lead – school failure, delinquency
- Mercury - agitation, cognitive problems
- Manganese – aggression and criminality
- Pesticides -



Carbon Monoxide Poisoning

- Mild to Moderate signs and symptoms include: headache, nausea, confusion, chest pain, dyspnea, gastroenteritis, and weakness
- Severe sign symptoms include: syncope, seizures, coma, myocardial ischemia, Dysrhythmias, pulmonary edema, skin bullae, myoglobinuria



Genetic Causes of Hyperactivity



- Tourette's Syndrome
- Fragile X Syndrome
- Down's Syndrome
- Grave's Disease
- Sickle Cell Anemia

Fragile X Syndrome

- Occurs in 1 in 1500 males
- Is the cause of 6% of mental retardation in males. (0.3% in girls)
- Boys can have from mild to profound mental retardation, cluttered speech, a large head and large ears, autism. They are typically tall. Girls may only have learning disabilities.

Hematologic causes of ADHD

- Anemia (Iron) can lead to feeling down, tiredness, aggression, irritability, poor performance.
- B vitamin (stress vitamins) deficiency can result in hostile and violent behavior

Neurologic Causes of ADHD



- Temporal lobe seizures can cause bizarre behavior, dreaminess, repetitive movements, and violent behavior
- Migraine and other types of headaches
- Paroxysmal events

More Neurologic Causes of ADHD

- Fetal Alcohol Effect and Syndrome
- Mixed brain dominance
- Brain cysts
- CNS benign tumors and cancers
- Cortical Atrophy
- Traumatic Brain Injury



Case Study #4

- 14 y/o 8th grade girl, 3rd of 5 children, living with her married bio-parents
- Low motivation, slow to respond, withdrawn
- Impaired or lower attention span, poor concentration
- Attitude: "Don't worry, be happy?"
- Difficulty remembering recent events
- Underestimates time needed to complete tasks.
- Reduced affect, recent weight gain, no friends,
- Poor academic achievement—low grades

CS #4 Abuse

- An estimated 60-75% of girls and 40-50% of boys are sexually molested during their childhood.
- The 4 forms of abuse are:
 1. Neglect, abandonment, rejection
 2. Sexual
 3. Emotional, mental, spiritual
 4. Physical
- The most damaging type of abuse is #1
- Some studies suggest that women are more abusive than men.

Stress reduces new cell proliferation

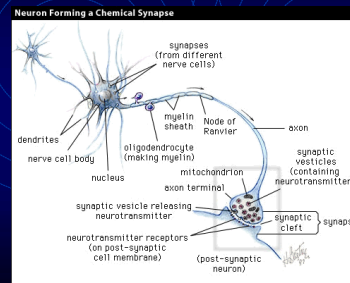
“A single exposure to stress can result in a significant reduction in the number of these proliferating cells. Our results suggest that . . . the rate of precursor cell proliferation can be affected by a stressful experience.”

Source: National Centers for Biotechnology Information, National Institutes of Health
http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?db=gene&cmd=Retrieve&db=PubMed&list_uids=1901214&dopt=Abstract

Why Do All These Diseases Cause ADD-like Behavior?

- They either directly or indirectly disrupt the function of neurons.
- Indirect causes include: anemia (not enough red cells to carry oxygen to the brain cells) and malabsorption (GI) problems, which reduce the availability of the basic building blocks of the neurotransmitters or glucose, the fuel of the cells.
- Direct causes include TBI and neurotoxins (drugs, alcohol, pesticides, food additives, heavy metals).

Brain cells communicate via neurotransmitters



Questions to Ask Yourself

- Is your child *really* inattentive or hyperactive?
- Is your child's behavior really abnormal?
- Is your child physically healthy?
- Is there a logical explanation for your child's behavior change?
- Is your child extremely bright?
- Is your child spoiled rotten?
- Is your child's life over-stimulated? (media/pop)
- Is your child uniquely different?
- Is your child learning disabled?

Psychiatric & Medical History

- Historians
- Chief complaint
- HPI
- Past psychiatric history: depression, anxiety, mania, stress, psychosis, OCD
- Family history
- Pre-natal, peri-natal and post-natal history
- Developmental history
- School history
- Past medical history
- Social history
- Substance use
- Possible abuse

Psychiatric and Medical Exam

- Physical appearance
- Attitude/Mood/Affect
- Gross/fine and grapho-motor development
- Speech and Language
- Attention, Concentration & Memory
- Hearing/Vision
- Constitutional
- HEENT
- Neck (LN/Thyroid)
- Cardio/Respiratory
- Neurological including Primitive Reflexes
- Muscle/Skeletal
- Skin

Psychiatric & Medical Diagnostics

- CBC
- Chemistry panel (includes electrolytes, renal and liver function)
- Lead Levels
- Urine
- Thyroid function
- Sedimentation rate
- ECG/ECHO
- EEG (Electroencephalogram)
- CT/MRI or PET scans
- Chromosomal analysis
- Psychological tests
- Toxicology screens
- Monospot
- Pregnancy tests

The Impact of Improper Medical Diagnosis on Learning

- Underachievement in school
- Failure to complete a high school education
- Under or unemployment
- Medical crisis's
- Death
- Increased juvenile delinquency,
- Low self-esteem

The Impact of Improper Medical Diagnosis on Learning-2

- Increased domestic violence, illegal and legal substance use
- Increased risk of abandonment, physical and emotional abuse

Dr. Sydney Walker III, M.D.



- "The real tragedy is that masking children's symptoms merely allows the underlying disorders to continue and in many cases, to become worse."

Sharper Minds Evaluation

- Extensive family, educational, developmental history
- ADT, DDT, modified Gesell, bilaterality assessment
- Auditory discrimination, mind's eye process
- Mixed brain dominance, balance, gross motor, fine motor and graphomotor skills
- WIAT, Reading comprehension, NVLD screening
- Connor's Continuous Performance Test (CPT-II)
- Response to stress, barriers to performance

Neural-Cognitive Therapy

- Cognitive Therapy - to integrate the right and left brain hemispheres (physiotherapy)
- Motor-sensory integration
- Distractions - dealing with stress
- 28 Program Success Principles (coping mechanisms)
- Authoritative Parenting Techniques
- More

Results - Improvements in:

- Behavior
- Seeing and hearing
- Coordination improves
- Peripheral Eyesight and Awareness
- Fine motor skills
- Grades
- Relationships with others



A's & B's

Drug-Free, Complementary Solution

- 70% are able to discontinue or substantially reduce psychotropic drugs within 8-12 weeks. 80-90% within 12 months (not guaranteed in every case).
- Results are "lasting"

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Questions & Answers

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Licensing options available for educational consultants, mental health practitioners, clinics and schools.

The information presented in this seminar is not intended to be a substitute for medical care.

If you or your child is taking stimulants or other prescriptions, do not discontinue the medication(s) without proper medical supervision.

While Sharper Mind Centers asks screening questions for many of the diseases discussed, it does not formally evaluate for the medical conditions discussed during this seminar. Sharper Mind Centers specializes in neuro-psychiatric evaluations and neuro-cognitive therapy