

THE HITCHHIKER'S GUIDE TO AD/HD IN ADULTS

Kevin Blake, Ph.D. P.L.C

Licensed Psychologist

Tucson, AZ

History and AD/HD

- 1865 Henrich Hoffman: “Fidgety Phil”
- 1902 George Still: “Defect in Moral Character”
- 1917-1918 “Postencephalitic Behavior”
- 1924 Encephalitis Lethargica

History and AD/HD

- 1937 Kurt Goldstein: Brain injured WWI soldiers, “Perceptual Impairment Distractibility, Preservation”
- 1937 William Bradley: Research on Headaches, CD and Benzedrine-Teachers’ Reports

History and AD/HD

- 1947 Strauss and Lehtenen:
Psychopathology of the Brain Injured
Child
- 1957 Laufer: Hyperkinetic Impulse
Syndrome
- 1957 Stevens and Birch: Strauss Syndrome

History and AD/HD

- 1960 Chess: The Hyperactive Child
- 1963 Kirk: Learning Disabilities
- 1963 Association for Children with Learning Disabilities (ACLD)
- 1966 Clements: Classifies brain impairments-Minimal Brain Dysfunction

History and AD/HD

- 1968 DSM-II: Hyperkinetic Reaction of Childhood
- 1971 Wender: Minimal Brain Dysfunction
- 1973 Public Law 93-112: Rehabilitation Act of 1973, Section 504
- 1975: Public Law 94-172: The Education for All Handicapped Children Act

History and AD/HD

- 1980 Douglas creates Attention Deficit Disorder criteria-DSM-III
- 1986 Weiss and Hechtman: Hyperactive Children Grown Up
- 1988 Children with Attention Deficit Disorder (CHADD) founded

History and AD/HD

- 1990 Human Genome Project
- 1990 The Decade of the Brain
- 1990 Zametkin: PET study of adult AD/HD
- 1994 DSM-IV: Attention-Deficit/Hyperactivity Disorder

History and AD/HD

- 1994 Hallowell and Ratey: Driven to Distraction
- 1995 National Attention Deficit Disorder Association (ADDA) founded
- 1997 Barkley: ADHD and the Nature of Self Control
- 1997 Bartlett v. New York State Board of Law Examiners

History and AD/HD

- 1997 Guckenberger v. Boston University
- 1997 The Association for Higher Education and Disability: LD Documentation Guidelines
- 1998 The Consortium on AD/HD: Guidelines for Documentation of Attention-Deficit/Hyperactivity Disorder in Adolescents and Adults

History and AD/HD

- 1998 Diagnosis and Treatment of Attention Deficit Hyperactivity Disorder (ADHD)
National Institutes of Health
Consensus Development Conference
Statement
- 2001 DRD4-7 Allele & Boston Life Sciences, Inc.

History and AD/HD

- 2002 American Academy of Child and Adolescent Psychiatry publishes practice parameters on the use of stimulants with AD/HD

What is “State of the Art”?



WHAT IS AD/HD?

- A developmental neurobiological disorder of self-regulation and executive function characterized by inappropriate amounts of :
- Impulsivity
- Inattentiveness
- Hyperactivity

(Barkley, R. A. (2002A-Tape 1). ADHD Symposium: Nature, Diagnosis and Assessment-Nature and Comorbidity and Developmental Course of ADHD. University of Massachusetts, January, Westborough, MA: Stonebridge Seminars.)

What is a “Developmental Disorder”?

- A disorder characterized by a significant delay in the rate a normal human trait develops in an individual.
- It takes the individual longer to develop this trait than their age peers.

(Barkley, R. A. (2002A-Tape 1). ADHD Symposium: Nature, Diagnosis and Assessment-Nature and Comorbidity and Developmental Course of ADHD. University of Massachusetts, January, Westborough, MA: Stonebridge Seminars.)

What does “neurobiological” mean?

80 to 85% of the cases of AD/HD are genetic in origin. I.Q. is 60 to 65% genetic.

(Barkley, R. A. (2002A-Tape 1). ADHD Symposium: Nature, Diagnosis and Assessment- Nature and Comorbidity and Developmental Course of ADHD. University of Massachusetts, January, Westborough, MA: Stonebridge Seminars.)

What Does Neurobiological Mean (Continued)?

With regard to the neuroanatomy, neurochemistry, genetics and brain imagery of AD/HD, “..the vast array of studies reviewed do highlight CNS abnormalities that, when taken together, present a convincing argument that the cause clearly resides within the realm of the developing brain”

(Zametkin, A.J., and Liotta, W. (1998). The Neurobiology of Attention-Deficit/Hyperactivity Disorder. Journal of Clinical Psychiatry, 59 (7), pp. 17-23.)

What does Neurobiological mean? (Continued)

- Stephen Pinker – “The Blank Slate: The Modern Denial of Human Nature”, or better stated, “The Lie of the Blank Slate”.

Pinker, S. (2002). The Blank Slate: The Modern Denial of Human Nature. New York, NY: Viking.)

- AD/HD is not caused by child rearing practices or environmental experience.

(Barkley, R. A. (2002A-Tape 1). ADHD Symposium: Nature, Diagnosis and Assessment-Nature and Comorbidity and Developmental Course of ADHD. University of Massachusetts, January, Westborough, MA: Stonebridge Seminars.)

What Does Neurobiological Mean (Continued)?

1. Damage to different neural networks may cause AD/HD symptoms.
2. Differences in Brain Development may cause them, too (More Common).

(Swanson, J., and Castellanos, X. (1998). Biological Bases of Attention Deficit Hyperactivity Disorder: Neuroanatomy, Genetics, and Pathophysiology. Available from- <http://addbalance.com/add/nih/19981118c.htm>,)

What is a “Disorder”?

- A disorder is a *harmful dysfunction* of a naturally selected mechanism.

Wakefield, J.C. (1999). Evolutionary Versus Prototype Analysis of the Concept of Disorder. Journal of Abnormal Psychology, 108 (3), pp. 374-399.

- It must cause a dysfunction in a trait every human develops and create impairment in a major life activity.

(Barkley, R. A. (2002A-Tape 1). ADHD Symposium: Nature, Diagnosis and Assessment-Nature and Comorbidity and Developmental Course of ADHD. University of Massachusetts, January, Westborough, MA: Stonebridge Seminars.)

What is a “Disability”?

- With adults the term disability has become a legal term of art since the passage of the American’s with Disability Act (ADA).
- One must be impaired compared to the Average American.
- Highly Controversial

Gordon, M., and Keiser, S. (Eds.) (1998). Accommodations in Higher Education Under the Americans with Disabilities Act: A No-Nonsense Guide for Clinicians, Educators, Administrators, and Lawyers. New York, NY: Guilford.)

What are Executive Functions?

Primarily frontal lobe abilities, “...in areas such as organization, future planning, and project completion” (Conners and Jett, 1999, p.19).

(Conners, C.K., and Jett, J.L (1999). Attention Deficit Hyperactivity Disorder (in Adults and Children): The latest Treatment Strategies. Kansas City, MO: Compact Clinicals.)

Brain Damage and Attention

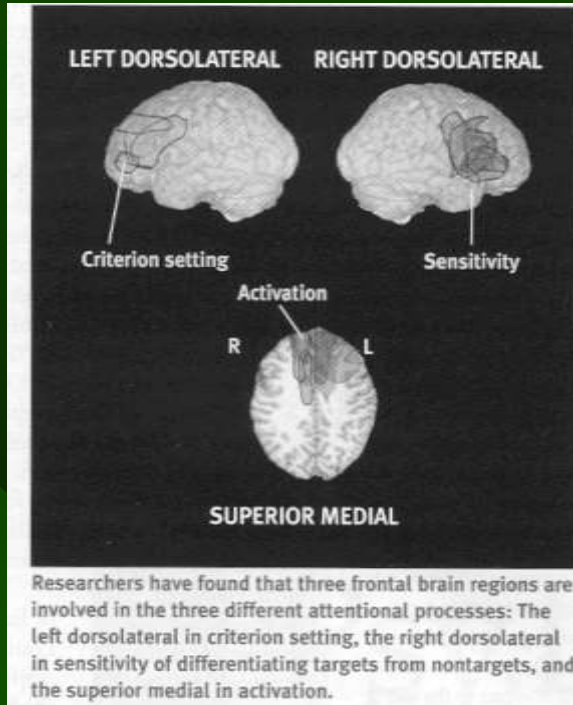
1. Medial frontal lesions—effects brain's readiness to respond (Activation)
2. Left dorsolateral lesions –Sets threshold for responding too high (Criterion setting)
3. Right dorsolateral lesions – deciding relevancy (Sensitivity)

Brain Damage and Attention (Continued)

4. Inferior medial frontal lesions – Activation (Readiness to Respond)

(Smith, D. (December, 2002). Does Brain Damage Cause Different Kinds of Attention Problems? Monitor On Psychology, 33 (11), P. 17.)

(Smith, D. (December, 2002). Does Brain Damage Cause Different Kinds of Attention Problems? Monitor On Psychology, 33 (11), P. 17.)



(Stuss, D.T., et. al. (October, 2002). Neurology, 16 (4).)

What is the “Dismal Four”?

- Diagnostic and Statistical Manual of Mental Disorders-Fourth Edition, Text Revision

(American Psychiatric Association, 2000 Washington, DC: American Psychiatric Association)



AD/HD Symptoms From DSM-IV, TR *Inattention*

Six (or more) of the following symptoms of **inattention** have persisted for at least 6 months to a degree that is maladaptive and inconsistent with developmental level:

AD/HD Symptoms From DSM-IV, TR (Continued)

Inattention

- (a) Often fails to give close attention to details or makes careless mistakes in schoolwork, or other activities
- (b) Often has difficulty sustaining attention in tasks or play
- (c) Often does not listen when spoken to directly

AD/HD Symptoms From DSM-IV, TR *Inattention (Continued)*

- (e) Has difficulty organizing tasks and activities
- (f) Often avoids, dislikes, or is reluctant to engage in tasks that require sustained mental effort
- (g) Often loses things necessary for tasks or activities
- (h) Is easily distracted by extraneous stimuli
- (i) Is often forgetful in daily activities

(American Psychiatric Association, 2000, p. 92)

AD/HD Symptoms from the DSM-IV, TR (Continued)

Hyperactivity-Impulsivity

- Six (or more) of the following symptoms of hyperactivity-impulsivity have persisted for at least 6 months to a degree that is maladaptive and inconsistent with developmental level:

AD/HD Symptoms from DSM-IV, TR (Continued) Hyperactivity

- (a) often fidgets with hands or feet or squirms in seat
- (b) often leaves seat in classroom or in situations in which remaining seated is expected
- (c) Often runs or climbs excessively in situations in which it is inappropriate

AD/HD Symptoms from DSM-IV, TR (Continued) Hyperactivity

- (d) often has difficulty playing or engaging in leisure activities quietly
- (e) is often “on the go” as if “driven by a motor”
- (f) often talks excessively

AD/HD Symptoms from DSM-IV, TR (Continued)

Impulsivity

- Often blurts out answers before questions have been completed
- Often has difficulty waiting turn
- Often interrupts or intrudes on others

(American Psychiatric Association, 2000, p. 92)

AD/HD Symptoms from DSM-IV, TR (Continued)

- Some hyperactive-impulsive symptoms that caused impairment were present before age 7 years.
- Some impairment from the symptoms is present in two or more settings.

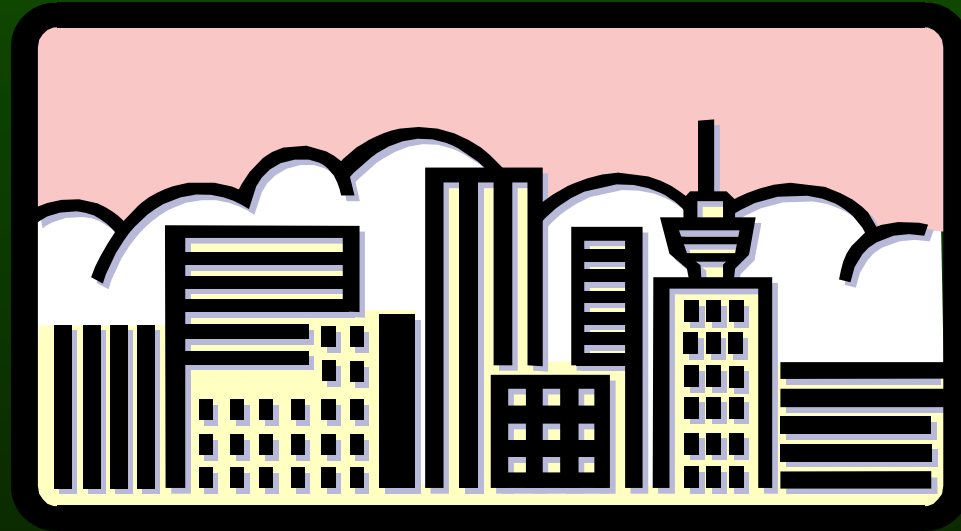
(American Psychiatric Association, 2000, p. 92)

International Classification of Diseases 9th Edition and AD/HD

ADHD (DSM-IV, TR) and Hyperkinetic Disorder (ICD-9) are closely related in terms of the of the diagnostic criteria, etc. The same is true of DSM-IV, TR and ICD-10.

(Swanson, J. , and Castellanos, X. (1998). Biological Bases of Attention Deficit Hyperactivity Disorder: Neuroanatomy, Genes, and Pathophysiology. Available from: <http://www.addbalance.com/add/nih/19981119c.htm>.)

And now the *INSIDE Story* of the DSM-IV, TR and AD/HD



“Don’t forget DSM-IV was voted on in a hotel room in New York City” (Ratey, 1996).

(Ratey, J. (1996). ADD and Other Brain Based Disorders. Paper presented at the International Conference of the Orton Dyslexia Society, Boston, MA.)

And now the *INSIDE Story* of the DSM-IV, TR and AD/HD (Continued)

- The DSM-IV Field trial included 4 to 16 year olds, primarily males.
- Until two week prior to going to press there were 24 symptoms of AD/HD in the DSM-IV.
- The field trial study was completed after DSM-IV was printed.

And now the *INSIDE Story* of the DSM-IV, TR and AD/HD (Continued)

- DSM-IV is not based on research done on AD/HD adults or females.
- The *Sluggish Cognitive Tempo* items were not included.
- The symptoms prior to the age of 7 criteria was an arbitrary number not established by science.

More on the DSM-IV, TR age of seven criteria

- Strict adherence to this criteria only identifies those with severe hyperactivity.
- Females with Inattentive AD/HD which manifests after age 7 will not be identified.
- 18% of Combined Type and 43 % of Inattentive Type manifest no AD/HD symptoms prior to 7.

(Quinn, P., and Nadeau, K. (Eds) (2002). Gender Issues and AD/HD: Research, Diagnosis and Treatment. Silver Spring, MD: Advantage.)

More on DSM-IV, TR's age of seven criteria

Barkley wrote:

“no such precise age of onset criteria are established for other developmental disorders...in order for them to be valid disorders, nor should there be such a criteria for AD/HD”.

(Barkley, R.A. (1997). ADHD and the Nature of Self-Control. New York, NY: Guilford.)

How to adapt DSM-IV, TR to adult AD/HD diagnosis

Change the cut DSM-IV, TR cutoffs for AD/HD adults by age:

- (1) Individuals age 17-29 = 4 inattentive and 5 hyperactive/impulsive
- (2) Individuals age 30-49 = 3 inattentive and 4 hyperactive/impulsive
- (3) Individuals over age 50 = 2 inattentive and 3 hyperactive/impulsive



(Murphy and Barkley, 1996)

(Murphy, K.R., and Barkley, R.A. (1996). Updated Adult Norms for the ADHD Behavior Checklist for Adults. ADHD Report, 4(4), pp. 12-13,16.)

How to adapt DSM-IV, TR to adult AD/HD diagnosis (Continued)



- With adult AD/HD DSM-V will have specific items that examine the adult's driving record, marital/relationship history, job history, etc.
- DSM-V will have lower cutoffs for females and possibly female specific symptoms.
- Do not adhere to the age of seven criteria. Early to mid adolescence may be more appropriate.

(Barkley, R.A. (1998). Attention Deficit Hyperactivity Disorder, Second Edition. New York, NY: Guilford.

Quinn, P.O. ,and Nadeau, K.R. (2002). Gender Issues and AD/HD: Research, Diagnosis and Treatment. Silver Spring, MD: Advantage.)

DSM-IV, TR and AD/HD Adults

- Those AD/HD adults diagnosed as being AD/HD in childhood fit the DSM-IV, TR Dx.criteria than do those diagnosed as adults.

((February, 2003). Are Current DSM-IV Criteria Appropriate for the Assessment of Adult ADHD?

ADHD Report, 11, p. 16/ Summary of: O'Donnell, J.P.,et. al. (2001). Assessing Adult ADHD Using a Self-Report Symptom Checklist. Psychological Reports, 88, pp. 871-881.)

How to Adapt DSM-IV, TR to AD/HD Adults

Barkley offered the following categories of presenting complaints of Self-Referred AD/HD Adults:

1. Talks Excessively
2. Poor Reading Comprehension
3. Inner Restlessness

Barkley (Continued)

4. Self-Selected Jobs
5. Impulsive Job Changes
6. Traffic Accidents and Fast
7. Tobacco & Caffeine
8. Quick to anger

Barkley (Continued)

9. Poor Sustained Mental Effort (Paperwork)
10. Looses things
11. Poor Time Management
12. Forgetful
13. Poor Financial Management

Barkley (Continued)

14. Demoralized

15. Poor Listening

16. Problems in Making and Sustaining Friendships

17. Verbally Abusive

(Barkley, R.A., 1998B). Attention Deficit Hyperactivity Disorder, 2nd Edition. New York, NY: Guilford, pp. 212.)

The four types of AD/HD in DSM-IV, TR

- Attention-Deficit/Hyperactivity Disorder, Combined Type
- Attention-Deficit/Hyperactivity Disorder, Predominately Inattentive Type
- Attention-Deficit/Hyperactivity Disorder, Predominately Hyperactive/Impulsive Type

DSM-IV, TR ADHD Subtypes (Continued)

- Attention-Deficit/Hyperactivity Disorder, Not Otherwise Specified

Attention-Deficit/Hyperactivity Disorder, Combined Type (DSM-IV, TR # 314.01)

A condition marked by a diminished capacity for rule-governed behavior, decreased response to punishment, increased sensitivity to immediate reward, decreased sensitivity to reinforcement and a faster rate of extinction/satiation of behavior. ADHD individuals have less capacity to delay response to environmental stimuli than do their peers. Their condition is marked by considerable variability in their performance (Barkley, 1990)

(Barkley, R.A.. (1990). Attention Deficit Hyperactivity Disorder. New York, NY: Guilford.)

Attention-Deficit/Hyperactivity Disorder, Combined Type (DSM-IV, TR # 314.01)

(Continued)

- “AD/HD is another form of V.D.—Variability Disease” (Brown, 1997)
- “AD/HD is impotence of the mind. If you’re not interested you can’t get your attention up” (Brown, 1997)

Brown, T.E. (May, 1997). Impairments of Memory In ADD and Learning Disorders. Paper presented at the 3rd Annual National ADDA Adult ADD Conference, St. Louis, MO.

Attention-Deficit/Hyperactivity Disorder, Combined Type (DSM-IV, TR # 314.01) (Continued)

- Conners and Jett's (1999, p. 19) Adult Symptoms of AD/HD:
- More ADHD symptoms as well as oppositional disorder symptoms at work and in college
- Shorter duration of employment
- Greater distress and maladjustment on measures of psychological disorders

Attention-Deficit/Hyperactivity Disorder, Combined Type (DSM-IV #314.01) (Continued)

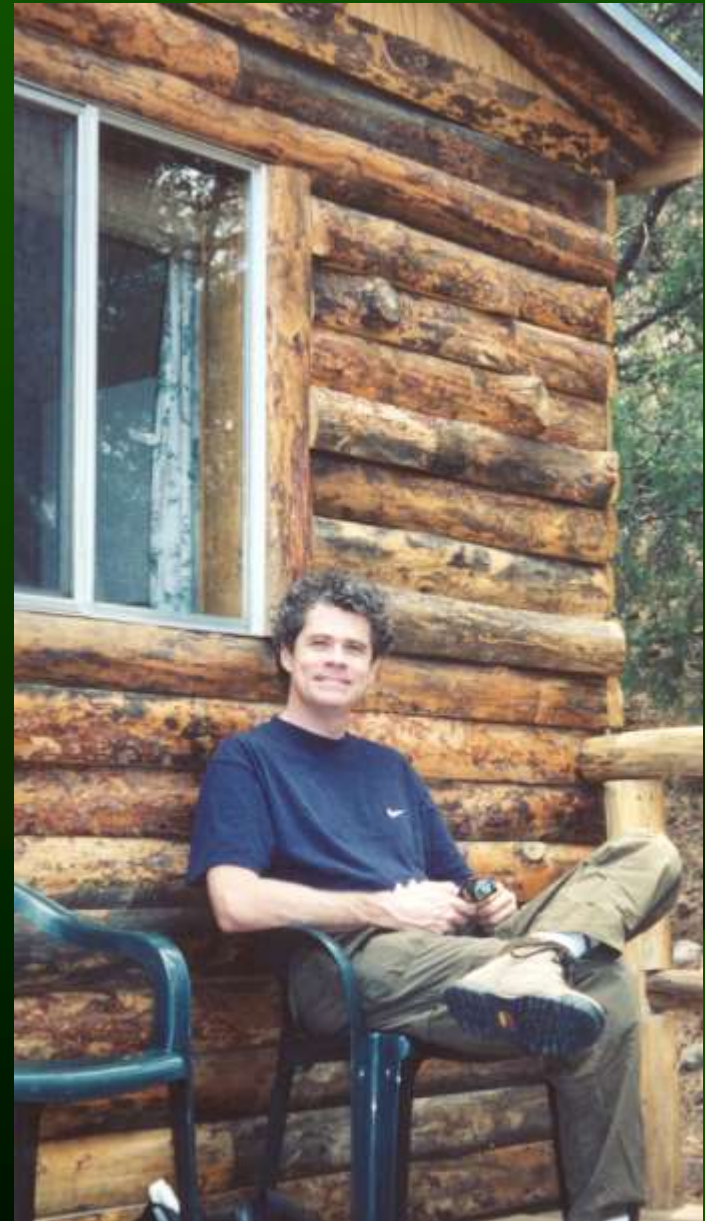
Conners and Jett's (1999, p. 19) adult AD/HD symptoms continued:

- Greater impulsivity and poorer sustained attention
- Poorer verbal and nonverbal working memory
- Alcohol or other substance abuse disorders

(Conners, C.K., and Jett, J.L. (1999). Attention Deficit Hyperactivity Disorder (in Adults and Children): The Latest Assessment and Treatment Strategies. Kansas City, MO: Compact Clinicals.)

**HEY, KEVIN GIVE THESE
GOOD PEOPLE A BREAK!**

It is now break time. Please
return promptly on time.
We have a lot more to cover.



Barkley's Cognitive Symptoms of AD/HD

- Slower, more variable reaction time
- More impulsive errors and missed signals
- Poor interference control (distractible)
- Reduced sensitivity to errors
- Deficient delayed spatial memory

Attention-Deficit/Hyperactivity Disorder, Combined Type (DSM-IV, TR # 314.01) (Continued)

- Barkley's Cognitive Symptoms of AD/HD (Continued)
 - Poor mental computation and memory for verbal sequences
 - Delayed internalization of speech
 - Poor time reproduction (not estimation)
 - Concrete disorganized story recall
 - Diminished olfactory identification (adults)

(Barkley, R. A. (2002A-Tape 1). ADHD Symposium: Nature, Diagnosis and Assessment-Nature and Comorbidity and Developmental Course of ADHD. University of Massachusetts, January, Westborough, MA: Stonebridge Seminars.)

Barkley's Theory of the Combined Type of AD/HD

- Behaviorally, Three Things make humankind different from all other species:

- Our ability to delay a response to our environment (Bronowski, 1977)

(Bronowski, J. (1977). Human and Animal Languages: In a Sense of the Future. Cambridge, MA: MIT Press.)

- “Our Capacity for Compassion” (Leakey, 1995)

(Leakey, R. (1995). Paper presented to the National Press Club, Washington, DC. Played on National Public radio.

- Our capacity for, “Long-term altruism” (Grandin, 1995, p. 201)

(Grandin, T. Thinking in Pictures: And Other Reports From My Life With Autism. New York, NY: Vintage Books.)

Barkley's Theory of the Combined Type of AD/HD (Continued)

We have, "...the ability to inhibit immediate urges to respond and because inhibition takes effort, waiting is not a passive act" (Barkley, 1995, P. 45)

(Barkley, R.A. (1995). Taking Charge of ADHD: The Complete Guide for Parents. New York, NY: Guilford.)

Barkley's Theory (Continued)

Step 1

- ***Response Delay:***

Separate emotion from event

Step 2

- ***Prolongation:***

A sense of past, present and future

Barkley's Theory (Continued)

Step 3

Rule Governed Behavior:

Use inner speech to control behavior

Step 4

Dismemberment of the Environment:

The ability to do analysis and synthesis

Summary of Barkley's Theory



Step 1: *Response Delay*

Step 2: *Prolongation*

Step 3: *Rule Governed Behavior*

Step 4: *Dismemberment of the Environment*

Barkley, R.A. (1997). ADHD and the Nature of Self-Control. New York, NY: Guilford.

Impulsivity?



Brown's Theory Of the Combined Type AD/HD

- Impaired Executive Functions in AD/HD:
 1. Organizing, Prioritizing and Activating to Do Work – **ACTIVATION**
 2. Focusing Sustaining Focus, & Shifting Focus to Tasks – **FOCUS**

Brown's Theory (Continued)

3. Regulating Alertness, Sustaining Effort & Processing Speed – ***EFFORT***
4. Managing Frustration & Modulating Emotions – ***EMOTION***
5. Utilizing Working Memory & Accessing Recall – ***MEMORY***

Brown's Theory (Continued)

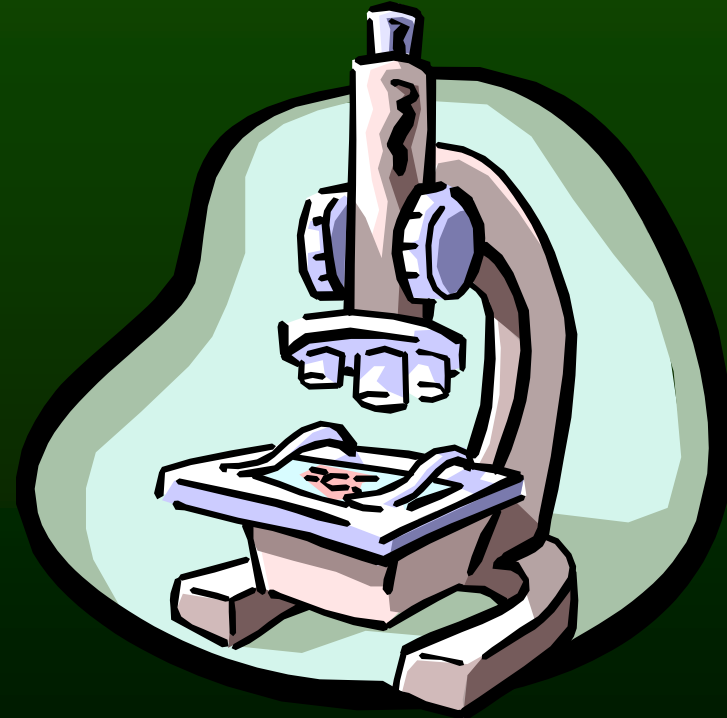
6. Monitoring and Self-Regulating Action -- ***ACTION***

(Brown, T.E. (2002). Social Ineptness & “Emotional Intelligence” in ADHD. Paper Presented at the 14th Annual CHADD International Conference, Miami Beach, FL, October 17-19.)



Brown's Theory Summarized

1. *ACTIVATION*
2. *FOCUS*
3. *EFFORT*
4. *EMOTION*
5. *MEMORY*
6. *ACTION*



Barkley's 30% Rule for Combined Type AD/HD

People with Combined Type AD/HD tend to be on average 30% less mature in dealing with time constraints and impulsivity than their age peers.

(Barkley, R.A.. (1998). ADHD in Children Adolescents, and Adults: Diagnosis, Assessment, and Treatment. New England Educational Institute, Cape Cod Symposium (August), Pittsfield, MA.)

PEOPLE WITH AD/HD ARE "BLIND TO TIME".

(Barkley, 1998)

(Barkley, R.A. (1998). ADHD in Children, Adolescents, and Adults: Diagnosis, Assessment and Treatment. New England Educational Institute, Cape Cod Symposium (August) Pittsfield, MA.)

Other thoughts about the 30% Rule

- “AD/HD is a meat cleaver. It cleaves intellect from performance” (Barkley, 1998).
- Impulsivity may simply be a human trait and not a pathological condition. In this sense AD/HD is a pathological form of a trait we all have (Barkley, 1998).

(Barkley, R.A. (1998). ADHD in Children, Adolescents, and Adults: Diagnosis, Assessment and Treatment. New England Educational Institute, Cape Cod Symposium (August), Pittsfield, MA.)

More Thoughts about the 30% Rule

- Those with AD/HD are 30% less mature in their ability to inhibit responses, control hyperactivity, and maintain attention than their age peers.
- ***WHAT DOES THIS MEAN FOR DRIVING AND UNTIMATE MATURITY IN THOSE AREAS?***

The Genetics of Combined Type AD/HD:

- Faraone, Doyle, and Biederman (2001) found that the “sensation seeking gene” or DRD4-7-repeat allele, or a gene close to it is associated to AD/HD.

(Faraone, S.V., Doyle, A.E., and Biederman, J. (2001). Meta-Analysis of the Association Between the 7-Repeat Allele of the Dopamine D4 receptor Gene and Attention Deficit Hyperactivity Disorder. American Journal of Psychiatry, 158, 1052-1057.)

Genetics of the Combined Type (Continued)

Barkley stated that AD/HD may be an extreme case of a trait we all possess.

(Barkley, R.A. (1995B). Taking Charge of ADHD: The Complete Guide for Parents. New York, NY: Guilford.)

Combined Type Genetics Continued:

Miller and Blum wrote, “Defective genes, causing abnormalities in brain chemistry, are responsible for a whole range of compulsive diseases and abnormal behaviors. Thus what we have learned about the genetics and brain chemistry of compulsive disorders has a direct application on ADHD.”

(Miller, D., and Blum, K. (1996). Overload: Attention Deficit Disorder and the Addictive Brain. Kansas City, MO: Andrews and McMeel.

Genes and AD/HD Combined Type (Continued)

Barkley said due to research begun as a result of the Human Genome Project all the genes involved with AD/HD should be known in the next 5 years

Genetically there are probably several subtypes of AD/HD and there appear to be multiple genes that cause AD/HD symptoms.

(Barkley, R. A. (2002A-Tape 2). ADHD Symposium: Comorbid Disorders, Etiologies and Outcomes. University of Massachusetts (January) Distributed by Stonebridge Seminars.)

Other Genes Suspected in Combined Type AD/HD

D2 – “Reward Deficiency Syndrome”



70% of alcoholics

25% non-alcoholics

(Miller, D., and Blum, K. (1996). Overload: Attention Deficit Disorder and the Addictive Brain. Kansas City, MO: Andrews and McMeel.)

Other Genes Suspected in Combined Type AD/HD:

- DAT1 (Dopamine Transporter) & DBH (dopamine B-hydroxylase...a noradrenergic gene)
- Having the DRD4-7 allele gives you a 50% chance of having AD/HD
- Identical twin studies have indicated AD/HD combined type is about 80% heritable. I.Q. is 60-65% heritable.

(Barkley, R.A. (2002B) ADHD and Oppositional Defiant Children. Seminar Presented February 19-20, Phoenix, AZ, The Institute for Continuing Education, Fairhope, AL.)

Genes (Continued)

While DAT1 may be related to the reuptake of Dopamine, DRD4-7 may be associated with an under-sensitive post-synaptic receptor.

(Hudziak, J.J. (2000). Genes of Attention-Deficit/Hyperactivity Disorder. In T.E. Brown (Ed.), Attention-Deficit Disorders and Comorbidities in Children, Adolescents and Adults. Washington, DC: American Psychiatric Press.

DAT1 Gene and AD/HD

The DAT1 gene regulates how many Dopamine reuptake pumps each nerve cell has. Those with AD/HD have too many repeats of this gene thus they have too many dopamine reuptake pumps. Hence the dopamine does not spend enough time in the synapse.

(Barkley, R.A. (2002A-tape 2). ADHD Symposium: Comorbid Disorders, Etiologies and Outcomes.
University of Massachusetts, January Distributed by Stonebridge Seminars, 2 Okie
Stonebridge, MA 05181.)

Genes (Continued)

While DAT1 may be related to the reuptake of Dopamine, DRD4-7 may be associated with an under-sensitive post-synaptic receptor.

(Hudziak, J.J. (2000). Genes of Attention-Deficit/Hyperactivity Disorder. In T.E. Brown (Ed.), Attention-Deficit Disorders and Comorbidities in Children, Adolescents and Adults. Washington, DC: American Psychiatric Press.

Neurochemical Differences in Combined Type AD/HD

Differences in the amount and actions of:

1. Dopamine
2. Norepinephrine
3. Serotonin



(Quinn, P.O. (1995). Use of Medication in the Treatment of ADD and Related Conditions. Paper presented at the 2nd Annual National ADDA Adult Conference-Professional ADD Institute Pre-Conference, Pittsburgh, PA..)

Genes and Neurotransmitters of the Combined type

- DRD4-7 Reduces sensitivity to Dopamine
- DAT Creates too many Dopamine Transporters
- DBH Allows the conversion of Norepinephrine to Dopamine; those with AD/HD MAY over convert

(Barkley, R.A. (2002) Mental and Medical Outcomes of AD/HD. Pre-Conference Institute, # TPA1, Thursday October 17, 2002, 14th Annual CHADD International Conference, Miami Beach, FL.)

Chromosomes Connected to Combined Type AD/HD

- Chromosomes 4, 5, 11, 17, and 8
- Often people have more than one genetic linkage to AD/HD
- AD/HD often occurs in families with ODD, CD alcohol and Tobacco Dependence

Muenke, M. Berg, K., et al. (Fall 2004). Genetics of ADHD: A Research Update From NIH. Focus, pp. 1 and 15.

Neurotransmitters of Combined Type (Continued)

- Dopamine=dysregulation-likely
- Norepinephrine=dysregulation-less evidence
- Serotonin=aggression (probable)

(Barkley, R.A. (2002A-Tape 2). ADHD Symposium: Comorbid Disorders, Etiologies, and Outcomes, University of Massachusetts, January, Distributed by Stonebridge Seminars, Westborough, MA.)

Neurochemical differences (continued)

“The site of action of Methylphenidate...suggests that dopamine is the principal neurotransmitter involved, although norepinephrine has also been implicated”

NIH Consensus Development Conference on Diagnosis
and Treatment of Attention Deficit Hyperactivity Disorder
11/16-18/98

(Swanson, J., and Castellanos, X. (1998). Biological Bases of Attention Deficit Hyperactivity Disorder: Neuroanatomy, Genetics, and Pathophysiology. Available from-
<http://www.addbalance.com/add/nih/19981118c.htm>, pp. 4 of 7.)

The Neurology of the Combined Type

Barkley (2002B) stated there are three areas of the brain that are significantly different in those that are AD/HD:

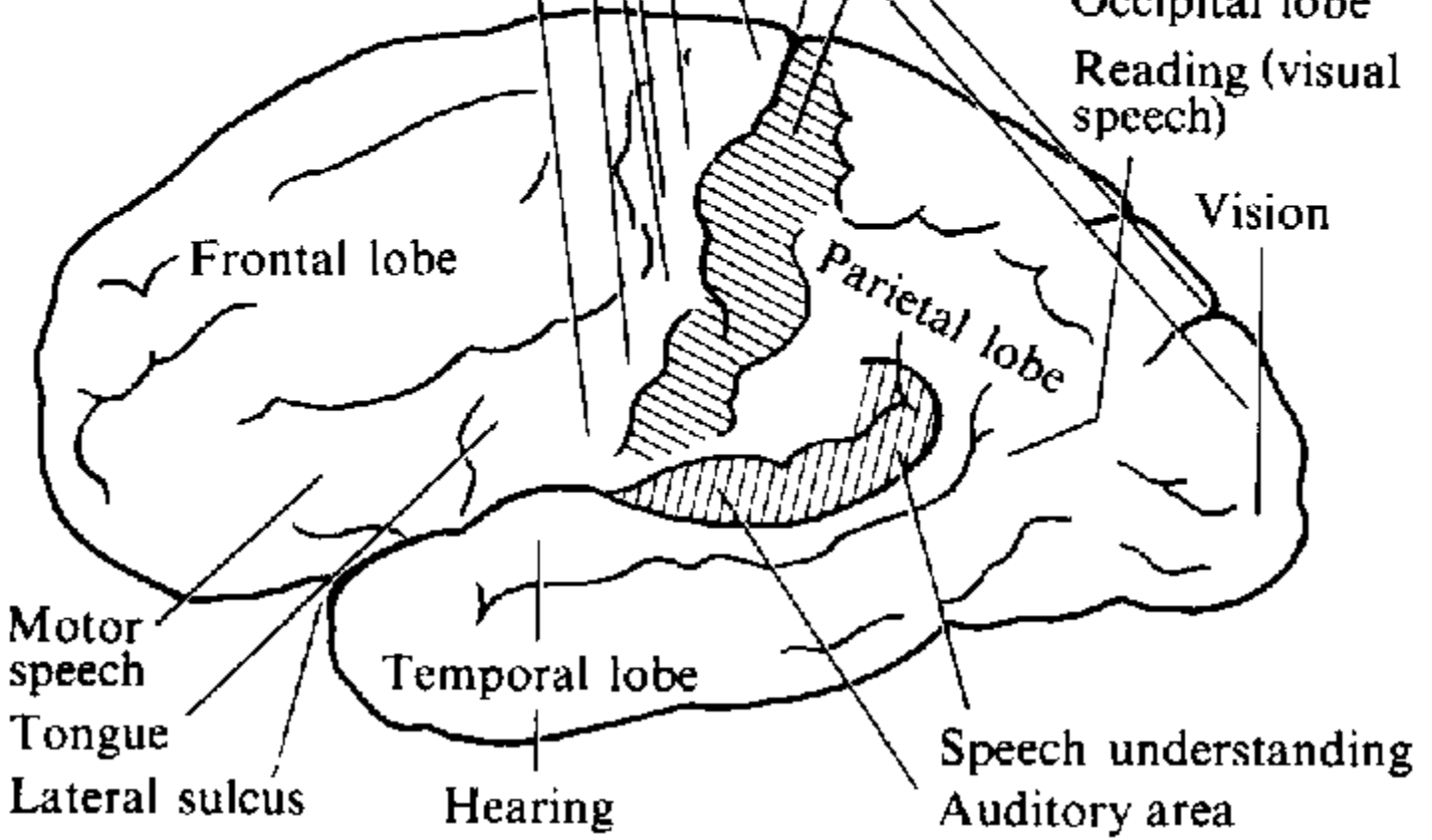
1. The ***Orbital Prefrontal Cortex-Primarily the Right Side***
2. The ***Cerebellar Vermis-Primarily the Right Side***
3. The ***Basal Ganglia-Striatum and Globus Pallidus***

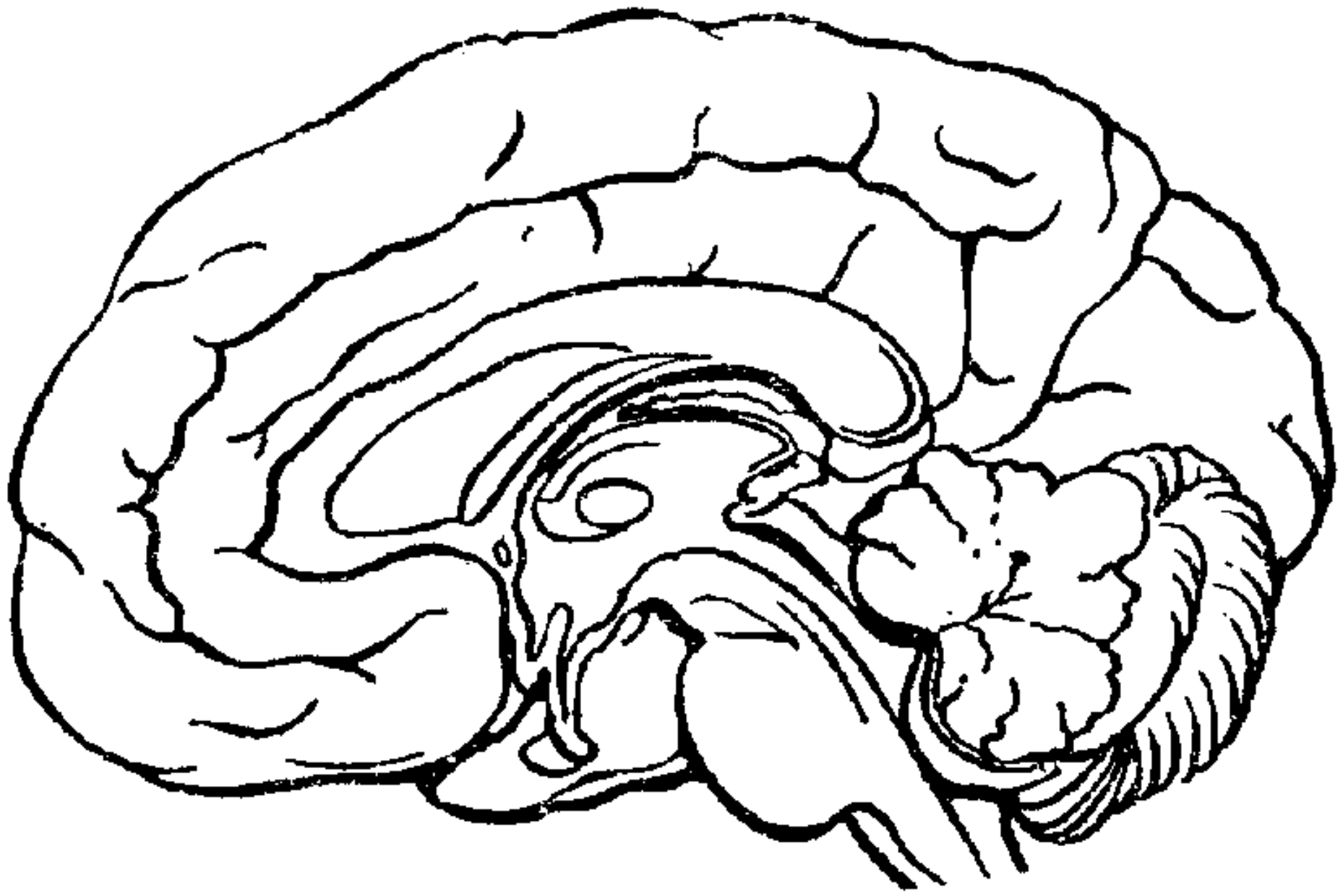
(Barkley, R.A. (2002B). ADHD and Oppositional Defiant Children. Seminar presented February 19-20, Phoenix, AZ.)

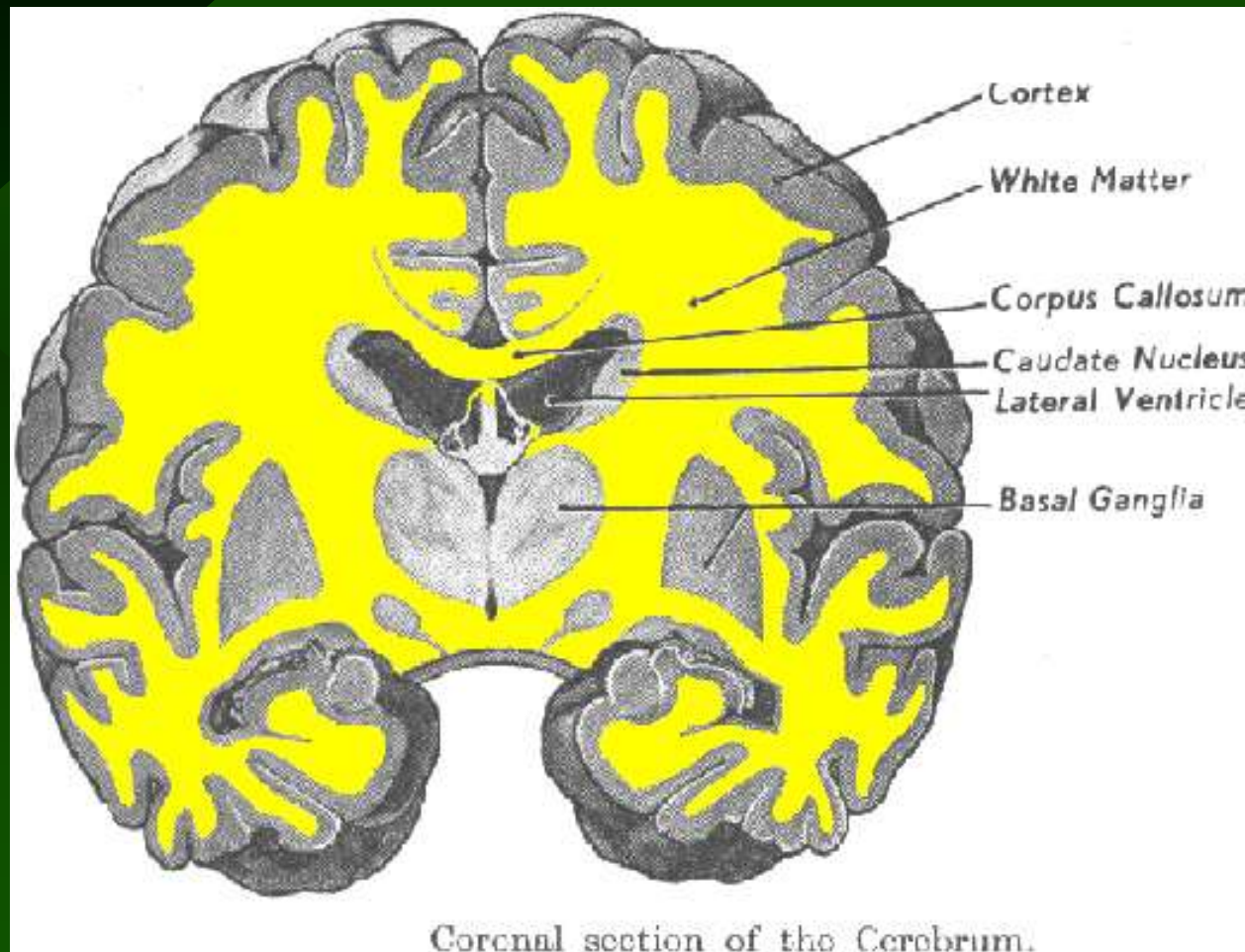
Motor centres

- Toes, foot, leg
- Thigh, abdomen, trunk
- Shoulder, arm
- Elbow, wrist, fingers
- Head, eyelids, cheeks
- Jaws, lips

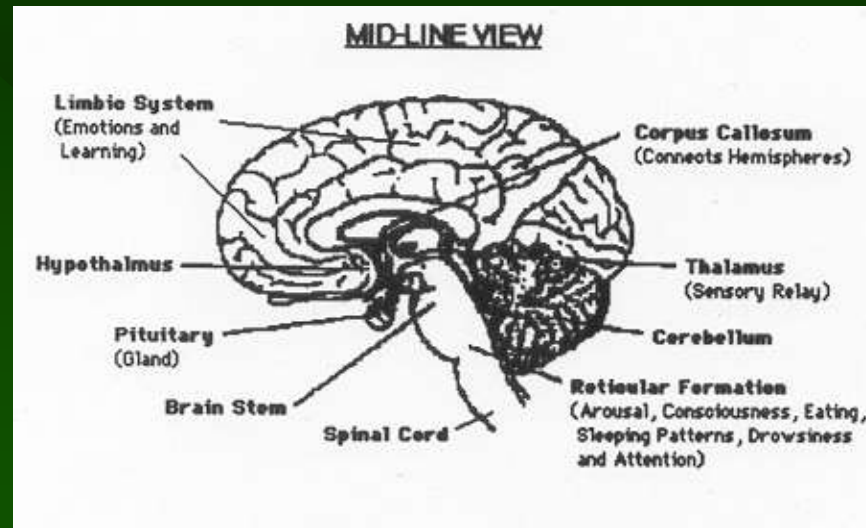
- Central sulcus
- Corresponding sensory centres
- Parieto-occipital sulcus
- Occipital lobe
- Reading (visual speech)







From:
<http://sasquatch.com/tpn/BrainMap.html>



Neuroanatomy of Combined Type AD/HD (Continued)

Evidence of reduced size in the frontal lobes and basal ganglia – These differences affect alerting and executive functioning (attention) and input-out processing.

(Swanson, J., and Castellanos, X. (1998). Biological Bases of Attention Deficit Hyperactivity Disorder: Neuroanatomy, Genetics, and Pathophysiology. Available from- <http://adddbalance.com/add/nih/19981118c.htm>, pp.)

What About Neuroimaging of Combined Type AD/HD?

1990 NIM PET Study of 25
AD/HD Adults:

Reduced blood flow in the
frontal and striatal
regions

(Zametkin, A.J., et. al. (1990). Cerebral metabolism in Adults with hyperactivity of Childhood Onset. New England Journal of Medicine. 323, pp.1361-1366.)



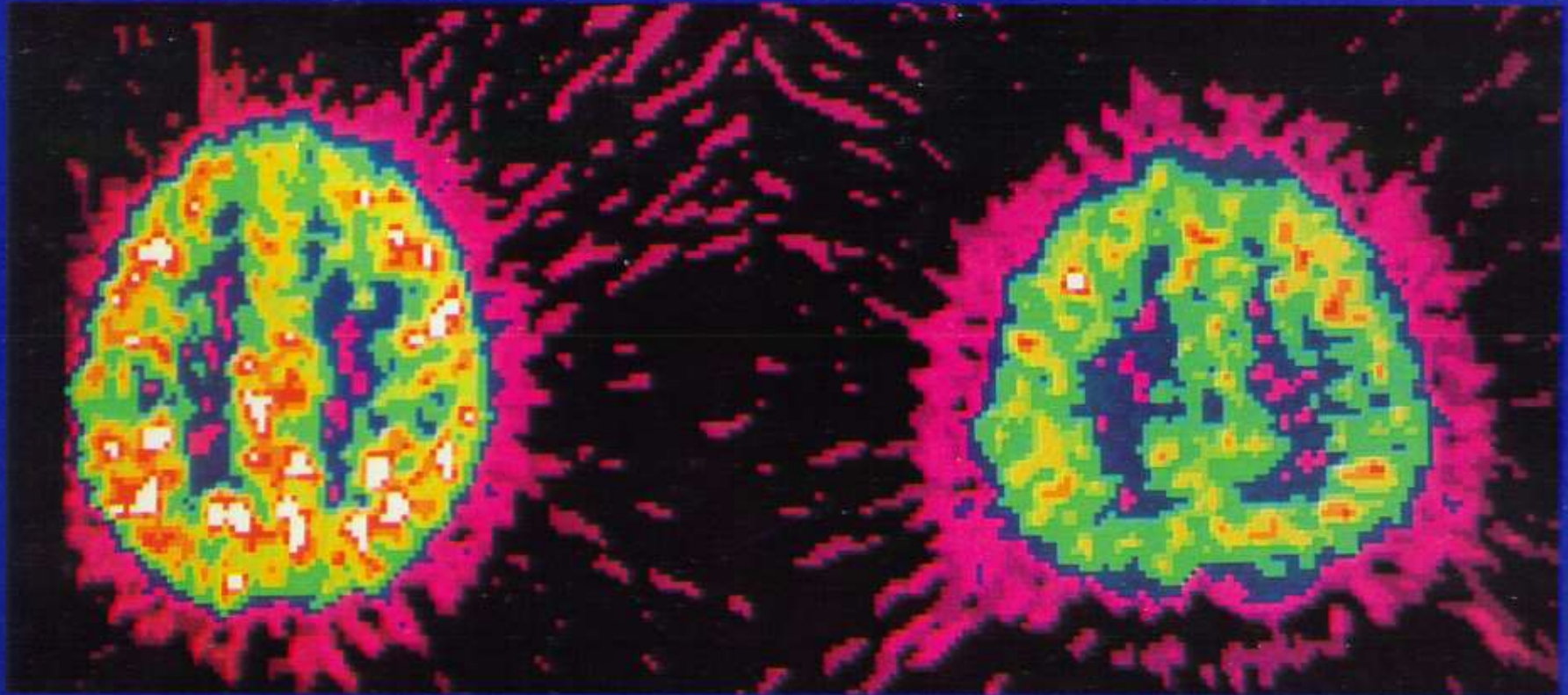
1990 NIH PET Study (Continued)

Adults with AD/HD Metabolize 10% **LESS** Glucose than non-AD/HD Adults Over Their Entire Brains.

(Zametkin, A.J., et. al. (1990). Cerebral metabolism in Adults with hyperactivity of Childhood Onset. New England Journal of Medicine. 323, pp.1361-1366.)

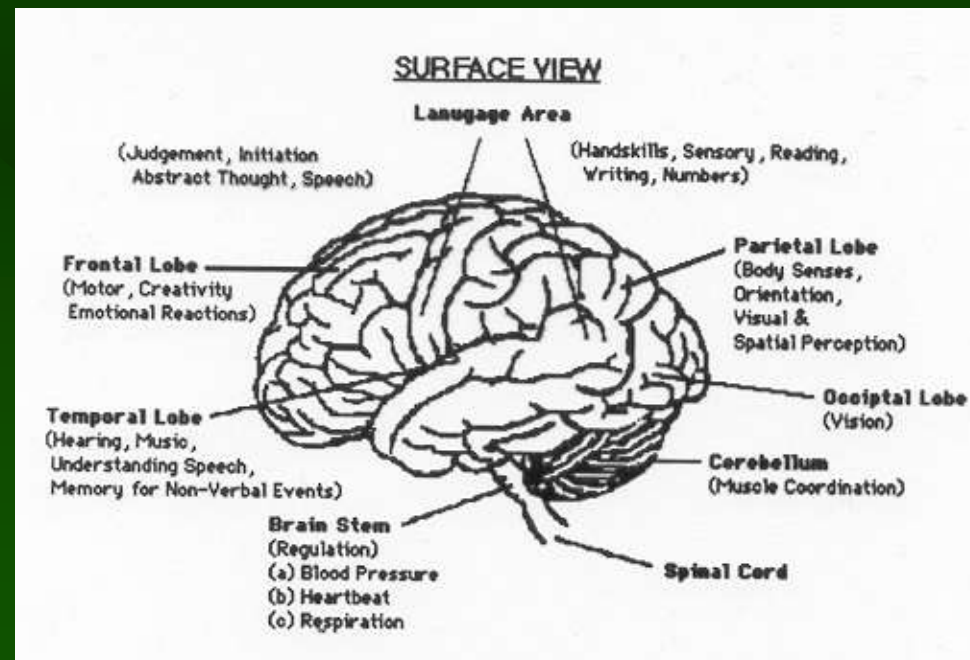
Non-ADHD Adult

ADHD Adult

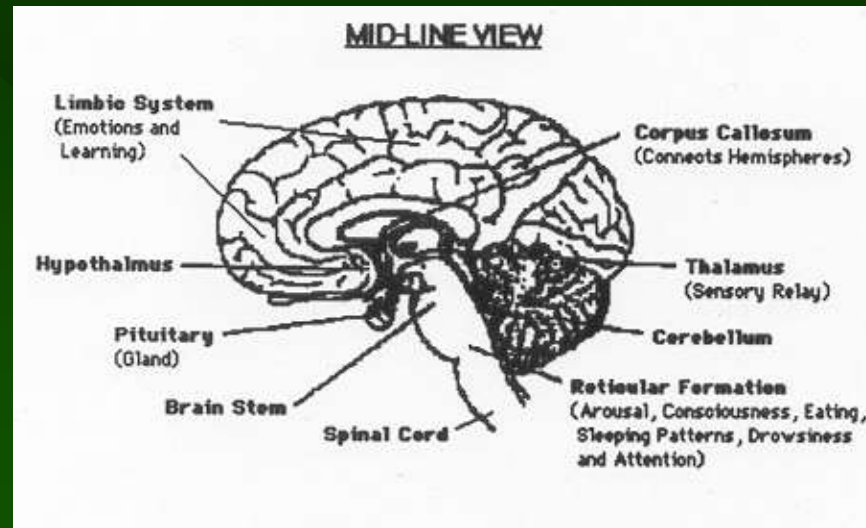


Attention deficit-hyperactivity disorder (ADHD) is real.

From:
<http://sasquatch.com/tpn/BrainMap.html>



From:
<http://sasquatch.com/tpn/BrainMap.html>



Other Imaging Data with Combined Type

Functional MRI Studies Have Shown Differences On the Right Side of The Caudate and Frontal Lobes in those with AD/HD.

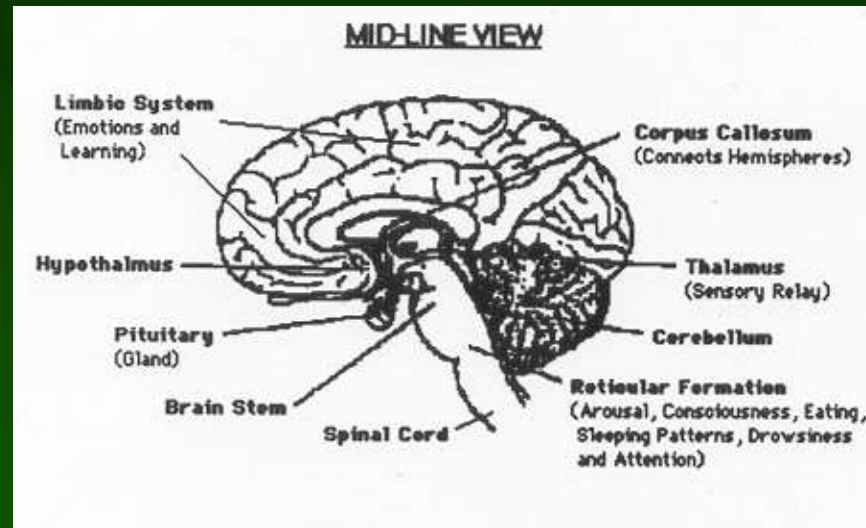
(Rapoport, J. (1996). Neurobiological Research Updates on ADD. Paper Presented at the CHADD International Conference, Chicago, IL.)

Other Imaging Data about Combined Type

AD/HD adults use their Basal Ganglia, Cerebellar Vermis and Occipital Cortex when doing Working Memory Tasks. Non-AD/HD adults use the Right Medial Frontal Cortex, Anterior Cingulate Gyrus, and Temporal Gyrus Regions for Working Memory.

(Imperio, W.A. (2000, January). Cerebral Blood Flow Differs In Adults with ADHD. Clinical Psychiatric News, 28 (1), 10.)

From:
<http://sasquatch.com/tpn/BrainMap.html>



Prevalence of Adult Combined Type AD/HD



- 4.7% in the U.S.
- 60% still impaired in Adulthood

(Barkley, R.A. (2002B). ADHD and Oppositional Defiant Children. Seminar Presented, February 19-20, Phoenix, AZ., The Institute for Continuing Education, Fairhope, AL.)

Gender Ratio of Combined Type AD/HD

- Males have 3 times more AD/HD than females

(Barkley, R.A. (1995). ADHD In Children, Adolescents, and Adults:Diagnosis, Treatment, and Assessment. New England Educational Institute, Cape Cod Symposia, New England Educational Institute (August), Pittsfield, MA.)

- That ratio appears to change to 1 to 2 in adulthood in favor of Males

(Anonymous (November, 2002). Attention Deficit Disorder in Adults. Harvard Mental Health Letter, 19 (5), 3-6.

- Combined Type AD/HD may not be identified as readily in females

Quinn, P., and Nadeau, K (2002). Revisiting DSM-IV: Developing Gender Diagnostic Criteria. In P. O. Quinn, and K. G. Nadeau (Eds). Gender Issues and AD/HD: Research, Diagnosis and Treatment. Silver Spring, MD: Advantage.

Kevin: Give These People a Break!



Please be back promptly in 15 minutes.

Thank You!

Welcome back! Lets get going!



Attention-Deficit/Hyperactivity Disorder, Predominately Inattentive Type (DSM-IV, TR # 314.00)

- Brown believes the Inattentive Type has all the symptoms of the Combined Type except Hyperactivity-Impulsivity

Inattentive AD/HD (Continued)

Brown believes the following are the areas of difficulty in the Inattentive Type:

1. Difficulty organizing and activating for work
2. Problems sustaining attention and concentration
3. Problems sustaining energy and effort

Brown and Inattentive AD/HD (Continued)

4. Problems managing affective interference
5. Problems utilizing working memory and accessing recall

(Brown, T.E. (1995). Differential Diagnosis of ADD Versus ADHD in adults. In K.G. Nadeau (Ed.), Attention-Deficit Disorder in Adults. New York, NY: Bruner/Mazel, 93-108.

Barkley's Comments on Inattentive AD/HD Symptoms

- They tend to be in a FOG
- Not very Attentive
- High levels of Generalized Anxiety
- Lethargic
- Slow moving

Barkley (Continued)

- Slow Intellectual Processing Speed
- Short-term memory problems
- Sequential memory problems
- Don't fully process information

Barkley (Continued)

- Difficulty discerning relevant from irrelevant Information

(Barkley, R.A. (1994). ADHD in Children, Adolescents and Adults: Diagnosis Assessment and Treatment. New England Educational Institute, Cape Cod Symposia, August, Pittsfield, MA.)



Kevin T. Blake, Ph.D., P.L.C.

Inattentive Type AD/HD= “Sluggish Cognitive Tempo”.

- Barkley wrote that this should be called ***Focused*** or **Selective Attention Disorder.**

(Barkley, R.A. (1998B). Attention Deficit Hyperactivity Disorder, Second Edition. New York, NY: Guilford.)

- Willcutt, Chhabildas, and Pennington Stated that Inattentives significantly slower processing speed than do those without AD/HD or those with the Combined Type.

(Willcutt, E.G., Chhabildas, N. ,and Pennington, B.F. (2001). Validity of the DSM-IV Subtypes of ADHD.ADHD Report., 9 (1), pp. 2-5.)

Sluggish Cognitive Tempo (Continued)

- Willcutt, Chhabildas, and Pennington said that those with the Inattentive Type have: **“Sluggish Cognitive Tempo”**
- **“Sluggish Cognitive Tempo” (SCT) :**
Hypoactive, Slow to Respond, Easily Confused

(Willcutt, E.G., Chhabildas, N., and Pennington, B.F. (2001). Validity of the DSM-IV
ADHD. ADHD Report, 9 (1), pp. 2-5.)

Subtypes of

Sluggish Cognitive Tempo (Continued)

McBurnett wrote Inattentive AD/HD is, “...characterized by slow retrieval and information processing, low levels of alertness, and mild with problems with memory and orientation...”

McBurnett (Continued)

...These features of inconsistent alertness and orientation (sluggishness, drowsiness, apparent daydreaming) were statistically extracted as a distinct factor termed 'sluggish cognitive tempo' (SCT)...

McBurnett (Continued)

“...The sluggish cognitive tempo factor was found to be associated with the inattention factor, but only when hyperactivity was not present (p. 6).”

(Mcburnett, K. (2001). Sluggish Cognitive Tempo: Left Behind on the way to DSM-IV. ADHD Report, 9 (10), pp. 6-7.)

Willcutt, Chhabildas and Pennington's Sluggish Cognitive Tempo Symptoms

- More problems with math achievement than Combined Type and “Normals”
- More Internalizing Problems than Combined Type/Few, if any Externalizing Problems
- Significant Processing Speed Problems

(Willcutt, E.G., Chhabildas, N., and Pennington, B.F. (2001). Validity of the DSM-IV Subtypes of ADHD. ADHD Report, 9 (1), pp. 2-5.)

Differing Age of Onset with Inattentive type

- Inattentives are referred for treatment later than Combined Types.
- In the DSM-IV field trial 100% of the Inattentives first manifested the disorder between ages 12 and 14.
- This suggests a different age of onset than the Combined Type.

(Barkley, R.A. (1998A). ADHD In Children, Adolescents, and Adults: Diagnosis, Assessment and Treatment. New England Educational Institute, Cape Cod Symposium, August, Pittsfield, MA.)

Mild Combined Type vs. Inattentive Type

30% to 50% of those with Inattentive AD/HD have the SCT subtype. The remainder are Shadow Syndrome Combined Type.

(Barkley, R.A. (2002) Mental and Medical Outcomes of AD/HD. Pre-Conference Institute, # TPA1, Thursday October 17, 2002, 14th Annual CHADD International Conference, Miami Beach, FL.)

Inattentive AD/HD and LD

- Inattentive AD/HD is often confused with LD.

(Barkley, R.A. (1998A). ADHD In Children, Adolescents, and Adults: Diagnosis, Assessment and Treatment, New England Educational Institute, Cape Cod Symposium, August, Pittsfield, MA.)

- Solanto concurred.

(Solanto, M.V. (2002). Overlooked and Undertreated? Inattentive AD/HD. Attention!, 9 (1), pp.29-31.)

- Inattentive Type MAY be related to Central Auditory Processing Disorder (CAPD)

(Barkley, R.A. (2002B). ADHD and Oppositional Defiant Children. Seminar presented, February 19-20, Phoenix, AZ.)

In the past some have questioned the existence of the Inattentive Type

Biederman and colleagues initially thought it was a mild version of the Combined Type, but later began to see them as two separate and distinct disorders.

(Biederman, et.al. (1994). Current Concepts in Psychotherapy and Pharmacology and Issues in Comorbidity and the Treatment of ADD in Children and Adolescents. Presentation at the International CHADD Conference, New York, NY, October, 1994.)

(Wilens, T.E. (1998). What ADHD Looks Like in Adults. Attention!, 4 (3), pp. 41-43.)

Questioned Existence (Continued)

Tzelepis speculated the Inattentive Type **MAY** be a type of Anxiety Disorder.

(Tzelepis, A., and Mapou, R. (May, 1997). Assessment. Paper presented at the Pre-Conference Professional ADD Institute of the 3rd Annual National ADDA Adult ADD Conference, St. Louis, MO.)

Conclusion about Inattentive ADHD

- It is a separate and distinct disorder from the Combined Type

(Milich, Balentine, and Lynam, 2002; Barkley, 2002A;McBurnett, 2001; Brown, 1997)

- In DSM-V the Combined Type will be in the Disruptive Behavior Disorders Section. The Inattentive Type will be elsewhere.

(Barkley, R.A. (2002A-Tape-1). ADHD Symposium: Nature Diagnosis and Assessment-Nature and Comorbidity and Developmental Course of ADHD. University of Massachusetts, January, Distributed by Stonebridge Seminars, Westborough, MA 01581.)

More on “*Sluggish Cognitive Tempo*” Items

These items were included in the DSM-IV field trials, but not included in the DSM-IV because, “...the *DSM-IV* working group wanted to keep the inattention symptoms identical for all subtypes (p. 2)”.

(Milich, R. Balentine, M.A., Lynam, D.R. (2002). The Predominately Inattentive Subtype-Not a Subtype of ADHD. *ADHD Report*, 10 (1), p. 1-6.)

Cleansing Breath!



The Genetics of the Inattentive Type

- Brown believes it is a genetically separate and distinct disorder from the Combined Type

(Brown, T. E. (1997). Impairments of Memory In ADD and Learning Disorders. Paper presented at the 3rd Annual National ADDA Adult ADD Conference, St. Louis, Mo.)

- Barkley believes the same.

(Barkley, R. A. (1998A). ADHD In Children, Adolescents, and Adults: Diagnosis, Assessment and Treatment. New England Educational Institute, Cape Cod Symposium, August, Pittsfield, MA.)

Inattentive Genetics (Continued)

Willcutt, Chhabildas, and Pennington stated twin studies indicate the vigilance and processing speed problems are highly inheritable.

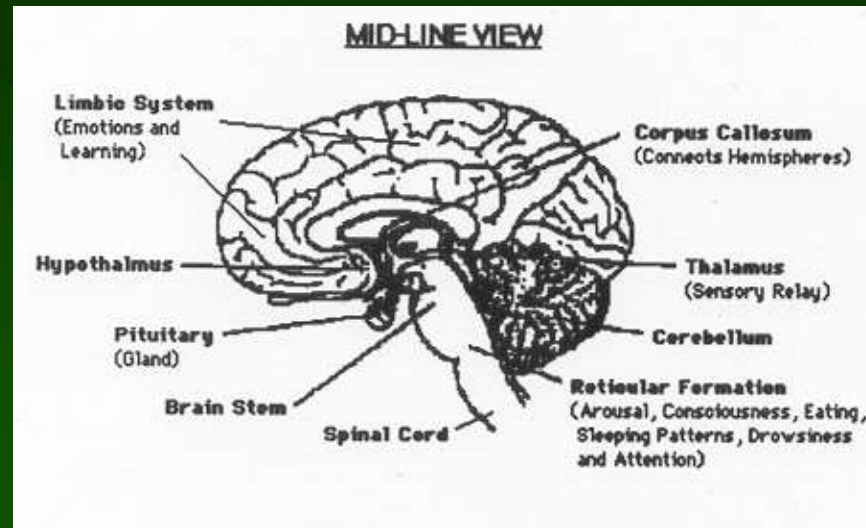
(Willcutt, E.G., Chhabildas, N., and, Pennington, B.F. (2001). Validity of the DSM-IV Subtypes of ADHD. ADHD Report, 9 (1), pp. 2-5.)

Etiology of Inattentive Type

Barkley speculated, "...ADHD-HI may involve posterior associative cortical areas and/or cortical-subcortical feedback loops, perhaps involving the hippocampal system" (p. 89)

(Barkley, R.A. (1990). Attention Deficit Hyperactivity Disorder. New York, NY: Guilford.)

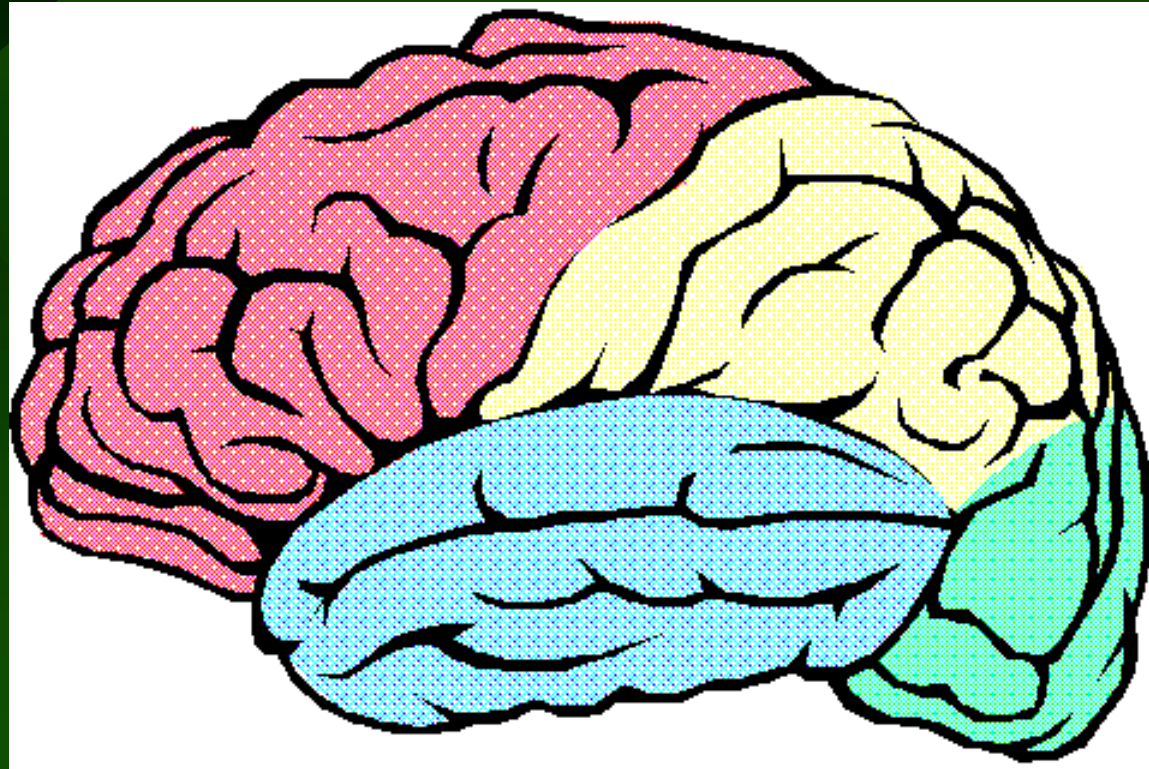
From:
<http://sasquatch.com/tpn/BrainMap.html>



Etiology of Inattentive AD/HD (Continued)

Amen said that SPECT scans on adults with the Inattentive Type have an under-activity only in the prefrontal cortex and not also in the motor cortex, the the Combined Types do.

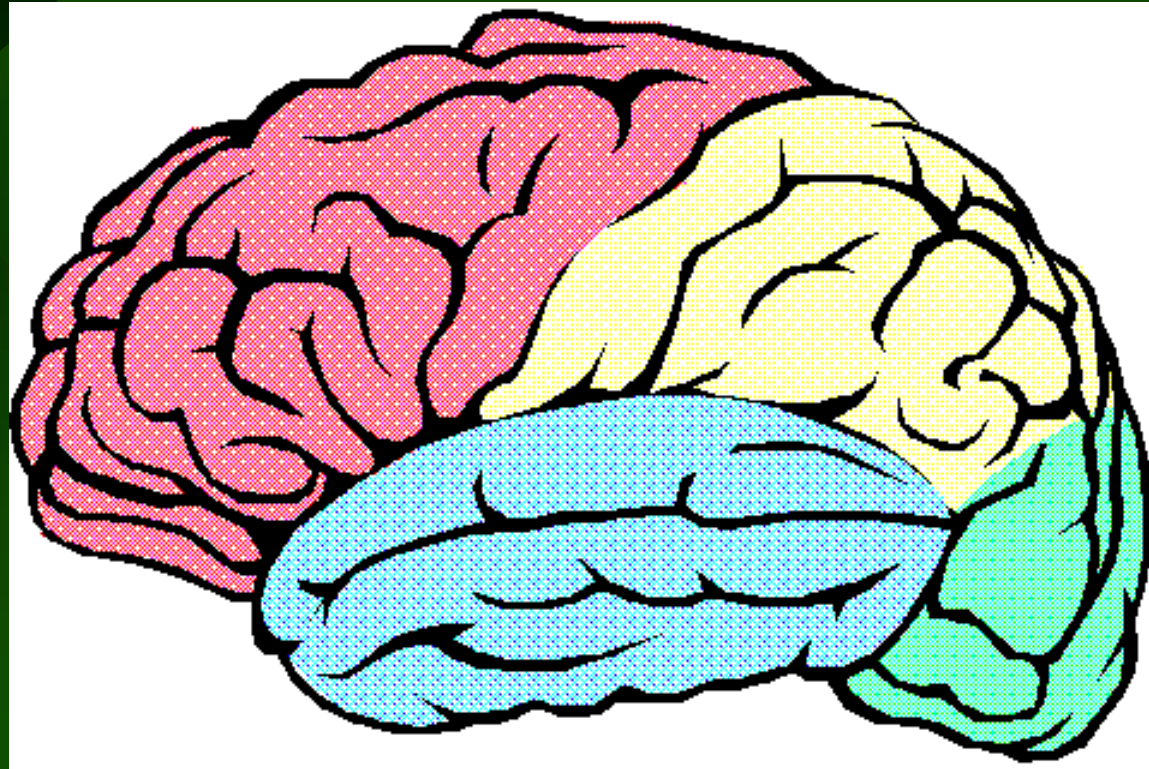
(Amen, D. (1997). Personal Communication. 3rd Annual National ADDA ADD Conference, St. Louis, MO.)



Etiology of Inattentive AD/HD (Continued)

Barkley said the Inattentive Type involves the posterior cortex, especially the parietal-occipital-thalamus complex. Abnormal evoked potentials have been found in the initial phase, but not the P-300 like in the Combined Type. BEAM scans suggest the anterior lobes.

(Barkley, R.A. (1998A). ADHD in Children, Adolescents, and Adults: Diagnosis, Assessment, and Treatment. New England Educational Institute, Cape Cod Symposium, August, Pittsfield, MA.)



Neurochemistry of Inattentive ADHD

Barkley speculated there is a problem related to Norepinephrine.

(Barkley, R.A. (1998A). ADHD in Children, Adolescents, and Adults: Diagnosis, Assessment, and Treatment. New England Educational Institute, Cape Cod Symposium, August, Pittsfield, MA.)



Prevalence of the Inattentive Type

- Barkley indicated 4.5% of the adult population has the Inattentive Type.

(Barkley, R.A. (1998). ADHD in Children Adolescents, and Adults: Diagnosis, Assessment, and Treatment. New England Educational Institute, Cape Cod Symposium, August, Pittsfield, MA.)

- However, he said 1.3% meet DSM-IV Criteria

(Barkley, R.A. (1998). ADHD in Children Adolescents, and Adults: Diagnosis, Assessment, and Treatment. New England Educational Institute, Cape Cod Symposium, August, Pittsfield, MA.)

Prevalence (Continued)

- Brown (2000) indicated that epidemiological studies indicated 4.5% to 9% of children are Inattentive.

(Brown, T.E. (2000). Emerging Understandings of Attention-Deficit Disorders and Comorbidities. In T.E. Brown (Ed.), Attention-Deficit Disorders and Comorbidities in Children, Adolescents, and Adults. Washington, DC: American Psychiatric Press.)

Prevalence (Continued)

- Milich, Balentine, and Lynam wrote the Inattentive Type is more prevalent in the general population than the Combined Type.

BUT

- The Combined Type is 1.5% more prevalent in clinic referred samples.

(Milich, R., Balentine, M.A., and Lynam, D.R. (2002). The Predominately Inattentive Subtype-Not a Subtype of ADHD. ADHD Report, 10 (1), pp. 1-6.)

Conclusion for Prevalence

- The Inattentive Type may be undertreated.

(Solanto, M.V. (2002) Overlooked and Undertreated? Inattentive AD/HD. Attention!, 9 (1), pp. 28-31.)

- McBurnett indicated the increase in prevalence of Inattentive Type is one reason AD/HD prevalence has risen since DSM-IV.

(McBurnett, K. (2001). Sluggish Cognitive Tempo: Left Behind On the Way to DSM-IV. ADHD Report, 9 (10), pp. 6-7.)

Gender Ratio and the Inattentive Type

- Solanto indicated the ratio is 2:1 in favor of males.
- She also stated it is more likely for females to have the Inattentive Type.

(Solanto, M.V. (2002). Overlooked and Undertreated? Inattentive AD/HD. Attention!, 9 (1), pp. 28-31.)

In Reality...

Barkley said we don't know much about the Inattentive type because there has only been a handful of studies of it.

(Barkley, R. A. (2002C). Mental Health Outcomes of AD/HD. Pre-Conference Institute, 14th Annual CHADD International Conference, October 17, 2002, Miami Beach, FL.)



In Reality (Continued)...

Solanto wrote that in 2002 the NIH funded Inattentive Type Research into:

- Stimulant Medication
- Difficulties of Orienting and Focusing
- Immediate and STM
- Executive Functioning

(Solanto, M.V. (2002). Overlooked and Undertreated? Inattentive AD/HD. Attention!, 9 (1), pp.29-31.)

Relax!



- Take a couple of minutes to “defrag”.
- Just take a couple of minutes (2-3) to stretch.
- Thank you!

Attention-Deficit/Hyperactivity Disorder, Predominately Hyperactive-Impulsive Type (DSM-IV, TR #314.01

- Tzelepis stated she has only seen Combined Type adults in her work and doubts the Predominately Hyperactive-Impulsive Type exists in adults.

(Tzelepis, A., and Mapou, R. (1997, May). Assessment. Paper presented at the Pre-Conference Professional ADD Institute of the 3rd Annual National ADDA Adult ADD Conference, St. Louis, MO.)

Hyperactive-Impulsive Type (Continued)

- Willcutt, Chhabildas, and Pennington wrote, “...we tentatively suggest that ADHD/HI may not be a valid subtype of ADHD, except as an early manifestation in children who will eventually meet criteria for the combined subtype” (p. 5).

(Willcutt, E.G., Chhabildas, N., and Pennington, B.F. (2001). Validity of the DSM-IV Subtypes of ADHD. ADHD Report, 9 (1), pp. 2-5.)

Hyperactive-Impulsive Type (Continued)

Brown, after reviewing the literature, said, “Together, these studies highlight the developmental separability of inattention symptoms from hyperactivity-impulsivity, even when both symptom sets initially coexist (e.g., a child with combined-type ADHD)” (p. 8).

Brown, T.E. (2000). Emerging Understandings of Attention-Deficit Disorders and Comorbidities. In T.E. Brown (Ed.), Attention-Deficit Disorders and Comorbidities in Children, Adolescents, and Adults. Washington, DC: American Psychiatric Press, pp. 3-55.)

Brown (Continued)

Brown wrote of Achenbach's research findings, “
...childhood attention deficits tend to persist into early adulthood, usually without persistence of significant problems with hyperactivity-impulsivity. Attention problems were found not only to be more persistent into adulthood than hyperactivity-impulsivity symptoms but also more impairing” (p. 9).

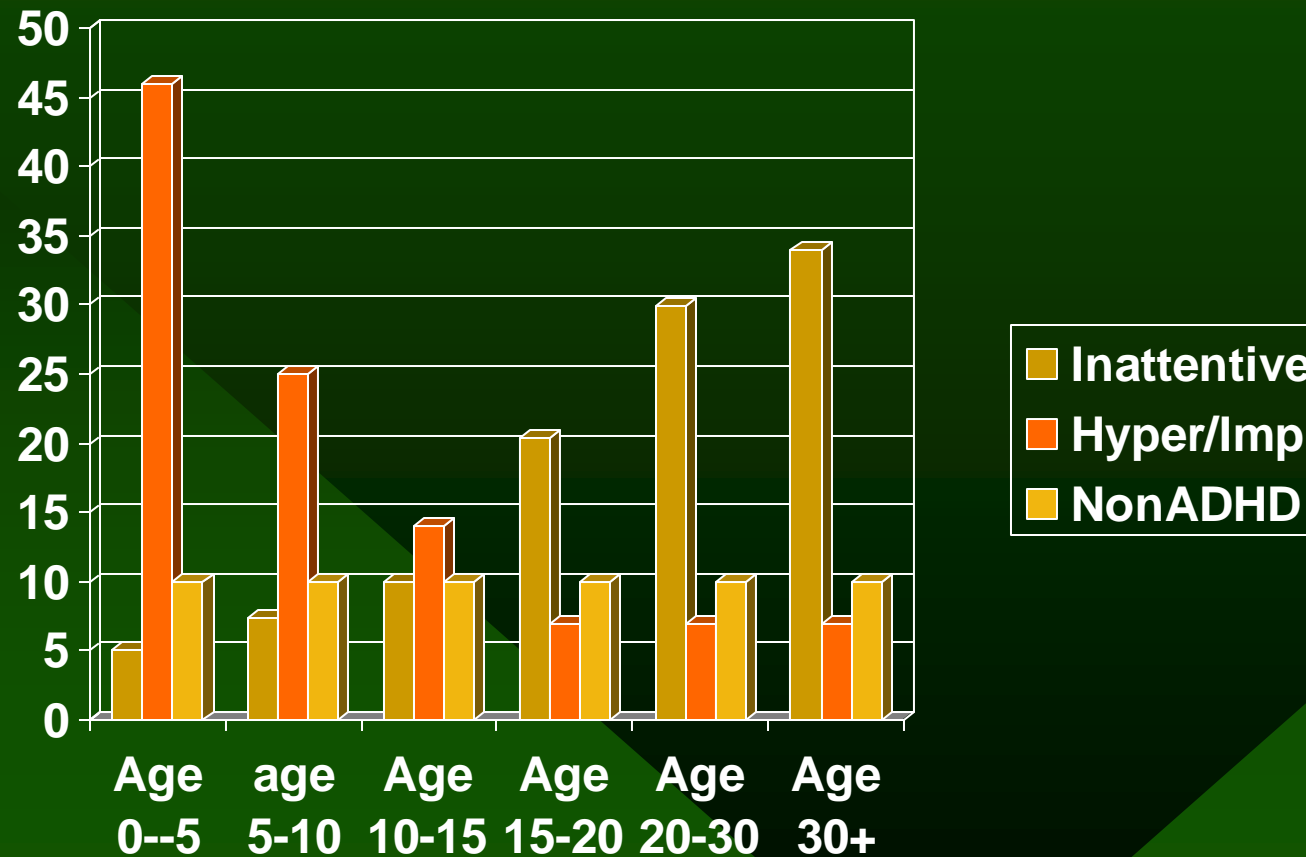
(Brown, T.E. (2000). Emerging Understandings of Attention-Deficit Disorders and Comorbidities. In T.E. Brown (Ed.), Attention-Deficit Disorders and Comorbidities in Children, Adolescents, and Adults. Washington, DC: American Psychiatric Press, pp. 3-55.)

Brown (Continued)

Brown called those who met DSM criteria for Hyperactive-Impulsive Type or Combined Type in Childhood, but only met criteria for Inattentive Type in Adulthood, **“CROSSOVERS”**.

(Brown, T.E. (1995). Differential Diagnosis of ADD Versus ADHD in Adults. In K.G. Nadeau (Ed.), A Comprehensive Guide to Attention-Deficit Disorder in Adults. New York: Bruner/Mazel, pp. 93-108.)

CROSSOVERS?

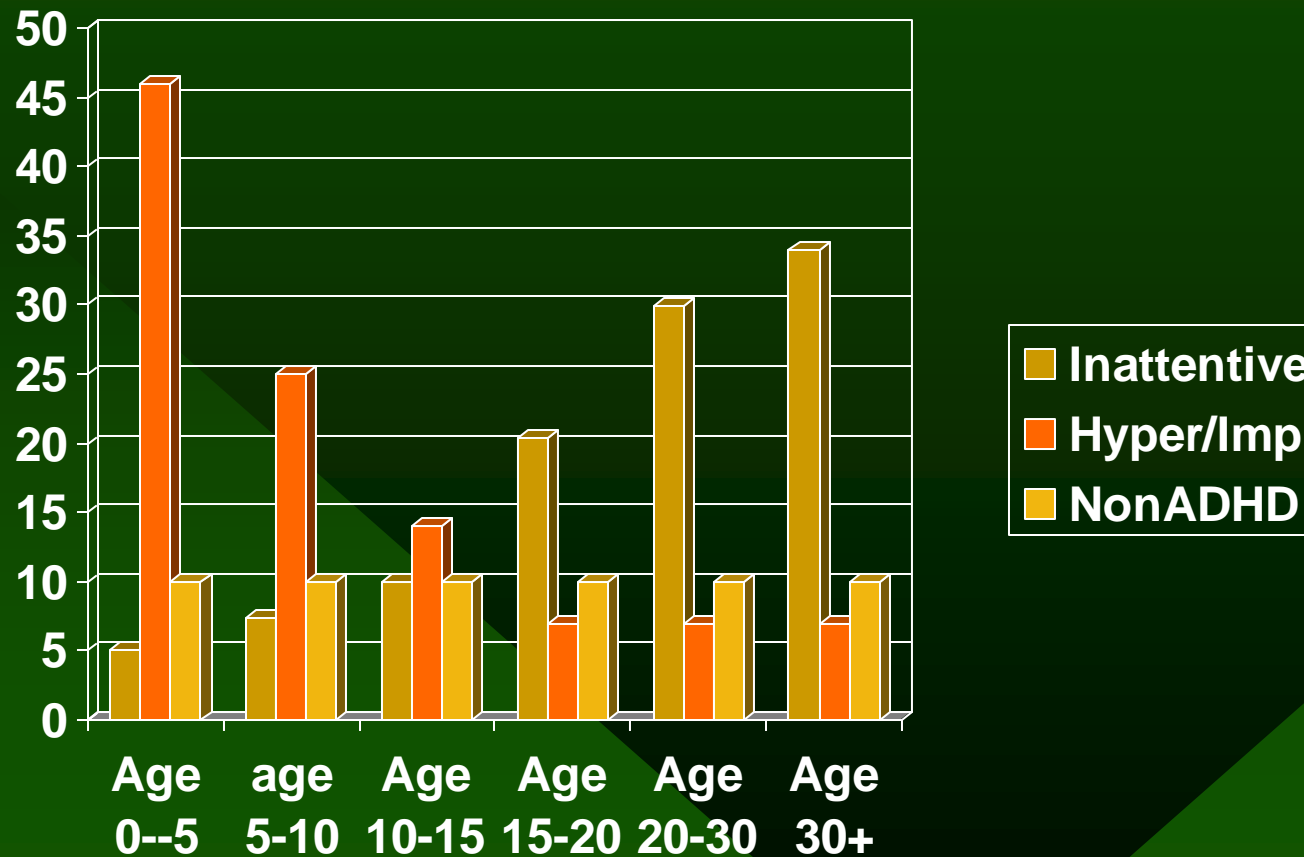


Crossovers (Continued)

Barkley wrote when the Combined Type changes to the Inattentive Type by adolescence or adulthood then the person should be thought of as having the Combined Type.

(Barkley, R.A. (2002B). ADHD and Oppositional Defiant Children. Seminar presented, February 19-20, Phoenix, AZ., The Institute for Continuing Education, Fairhope, AL.)

CROSSOVERS?



Crossovers (Continued)

McBurnett wrote the DSM-IV field trial indicated that for the Hyperactive-Impulsive symptoms the cutoff should be 5, but 6 was chosen to ensure symmetry with the Inattentive symptoms and to lower prevalence.

(McBurnett, K. (2001). Sluggish Cognitive Tempo: Left behind on the way to DSM-IV. ADHD Report, 9 (10), pp. 6-7.)

Crossover (Continued)

As a result, Barkley indicated that an Inattentive Type person should receive the Combined Type diagnosis even when they have only 5 symptoms.

(Barkley, R.A. (2002B). ADHD and Oppositional Defiant Children. Seminar presented, February 19-20, Phoenix, AZ, The Institute for Continuing Education, Fairhope, AL.)

Crossovers (Continued)

Barkley concluded that the Combined Type and the Hyperactive-Impulsive Type of AD/HD are the same and represent differences in severity and age.

(Barkley, R.A. (2002A-tape 1). ADHD Symposium: Nature, Diagnosis and Assessment—Nature and Comorbidity and Developmental Course of ADHD. University of Massachusetts, January, Distributed by Stonebridge Seminars, Westborough, MA.)

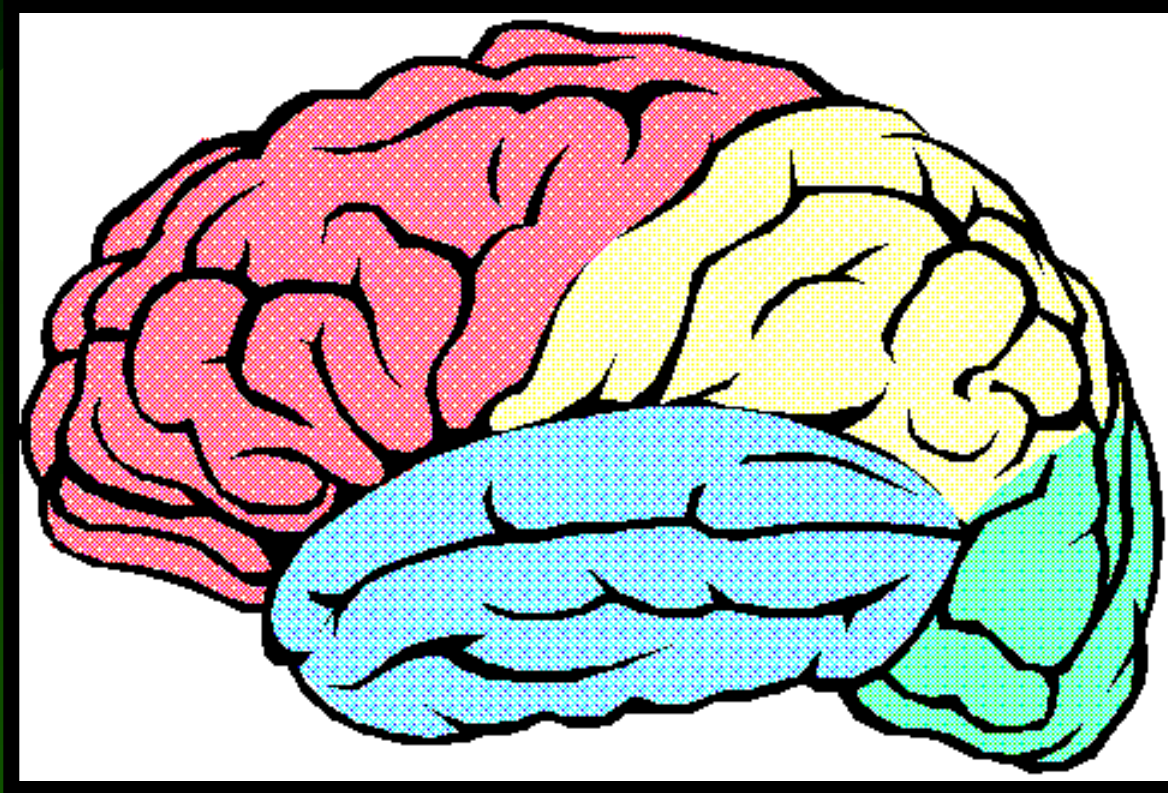
What does this mean?

Attention-Deficit/Hyperactivity Disorder, Predominately Hyperactive-Impulsive Type does not exist. It is just an early developmental form of the Combined Type.

What Does This Mean?

The last area of the brain to develop is the frontal lobe. It continues to develop until the 3rd decade of life. As it develops in a person with AD/HD the way they manifest their AD/HD symptoms change. The severity of their symptoms decrease, but they are still disabled compared to their age peers.

Barkley, R.A. (2002B). ADHD and Oppositional Defiant Children. Seminar presented, February 19-20, Phoenix, AZ.)



Time For a Break Kevin!

Please be back in 15 minutes! Thank you!

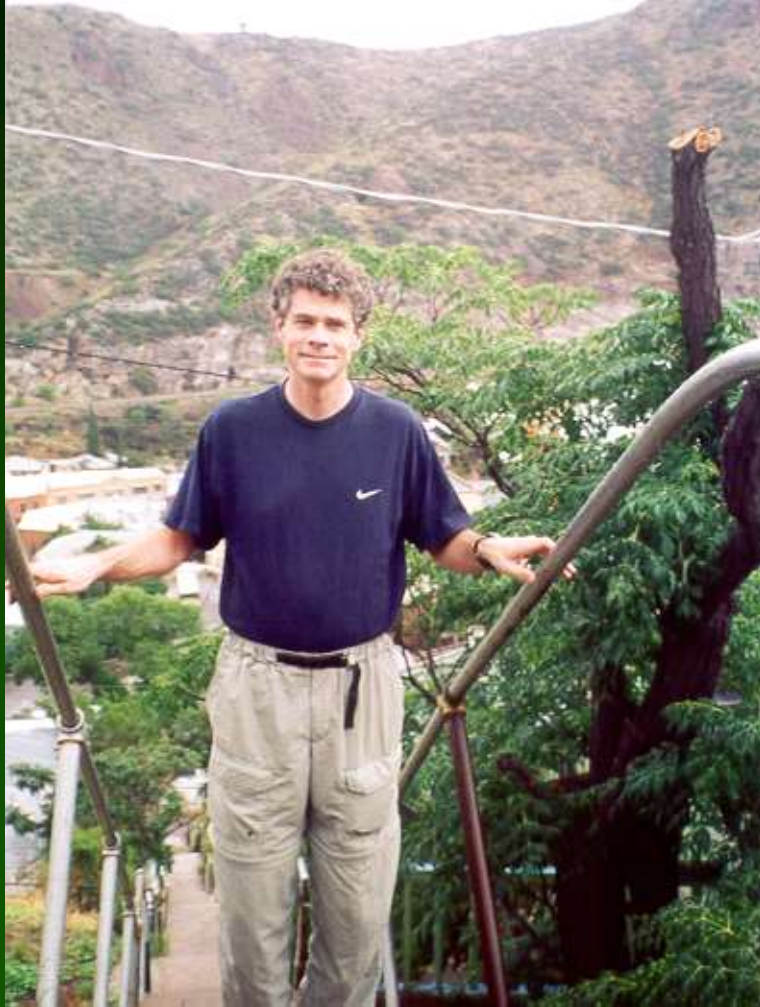


Attention Please!

Let's get started we
have a lot of ground to
cover!



Attention-Deficit/Hyperactivity Disorder Not Otherwise Specified (DSM-IV, TR # 414.9)



Kevin T. Blake, Ph.D., P.L.C.

Attention-Deficit/Hyperactivity Disorder Not Otherwise Specified (DSM-IV, TR # 414.9) (Continued)

“This category is for disorders with prominent symptoms of inattention or hyperactivity-impulsivity that do not meet criteria for Attention-Deficit/Hyperactivity Disorder” (p. 93).

(American Psychiatric Association (2000). DSM-IV, TR. Washington, DC: American Psychiatric Association.)

Attention-Deficit/Hyperactivity Disorder Not Otherwise Specified (DSM-IV, TR # 414.9) (Continued)

Examples Include:

1. Individuals whose symptoms and impairment meet criteria for Attention-Deficit/Hyperactivity Disorder, Predominately Inattentive Type but whose age at onset is 7 years or after.

(American Psychiatric Association (2000). DSM-IV, TR. Washington, DC: American Psychiatric Association.)

Attention-Deficit/Hyperactivity Disorder Not Otherwise Specified (DSM-IV, TR # 414.9) (Continued)

2. Individuals with clinically significant impairment who present with inattention and whose symptom pattern does not meet full criteria for the disorder but have a behavioral pattern marked by sluggishness, daydreaming, and hypoactivity” (p. 93)

(American Psychiatric Association (2000). DSM-IV, TR. Washington, DC: American Psychiatric Association.)

AD/HD NOS

- These Individuals may have AD/HD-like symptoms due to closed head injury, illness, or contact with an environmental toxin.
- Older adults who have no collaterals that knew them as a child may get this diagnosis.
- Diagnosis given when person does not meet full DSM-IV, TR criteria.

AD/HD NOS

Some like Mapou do not believe this is a valid diagnosis.

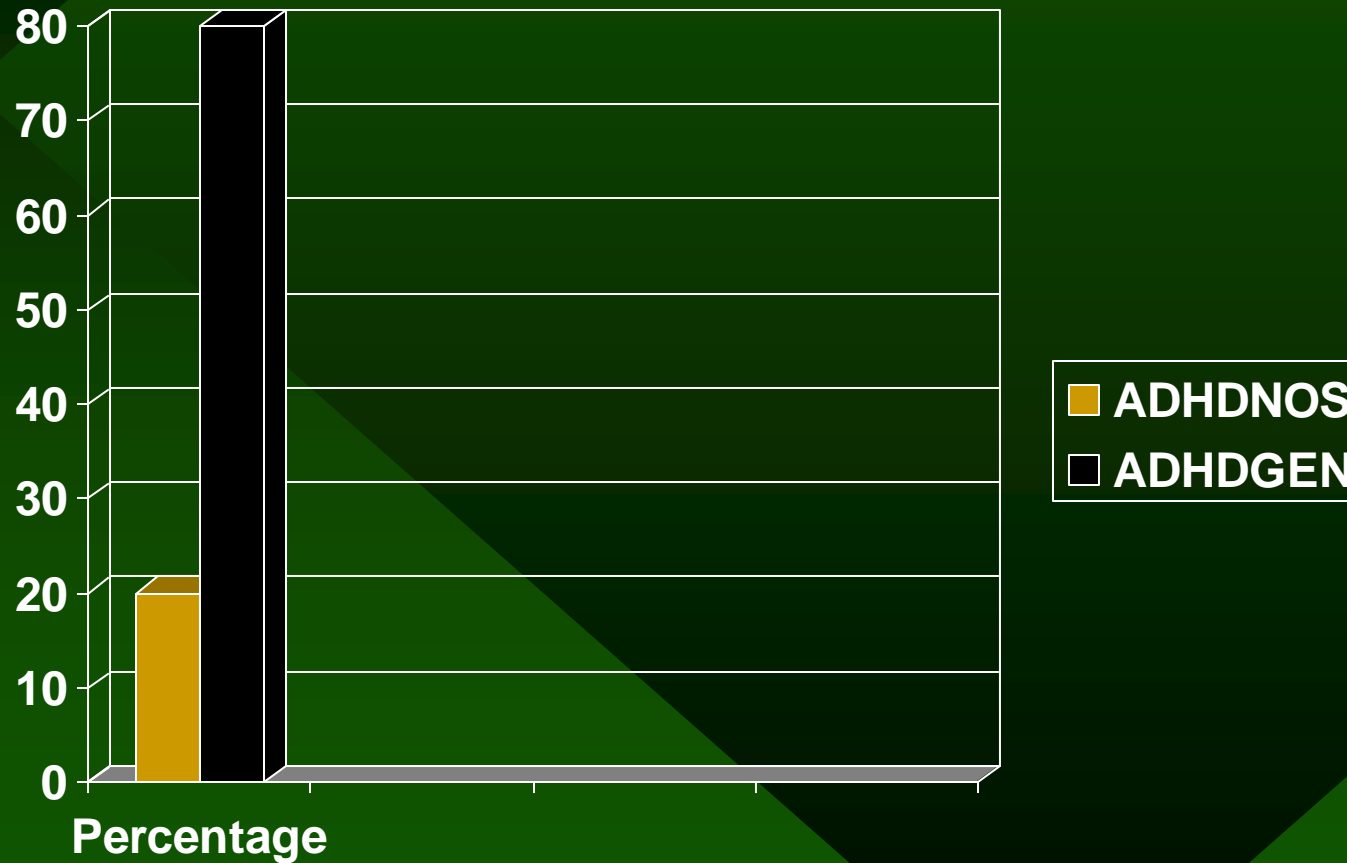
(Mapou, R. (May, 1997). Understanding the Neuropsychological Assessment Process. Paper presented at the 3rd Annual National ADDA Adult Conference, St. Louis, MO.)

AD/HD NOS

Barkley believes it is a valid diagnosis that occurs 1 in 5. He believes these individuals have “Acquired AD/HD”.

(Barkley, R.A. (2002A-Tape 1). ADHD Symposium: Nature, Diagnosis, and Assessment-Nature and Comorbidity and Developmental Course of ADHD. University of Massachusetts, January, Distributed by Stonebridge Seminars, Westborough, MA.)

Percentage of AD/HD NOS Compared to All Other Forms Of AD/HD



“Acquired AD/HD”

- Those with Acquired AD/HD have brain damage.
- Those with Genetic AD/HD do not have brain damage. They have an altered neuroanatomy and neurochemistry due to an altered neurobiological development.

(Barkley, R.A. (1998A). ADHD in Children, Adolescents, and Adults: Diagnosis, Assessment, and Treatment. New England Educational Institute, Cape Cod Seminars, August, Pittsfield, MA.)

“Acquired AD/HD”

- Those with Fetal Alcohol Syndrome/Effects often have Acquired AD/HD.
- Barkley said their AD/HD is qualitatively different from those with Genetic AD/HD.
- They do not respond to medications as well as those with Genetic AD/HD
- They appear brain damaged.

(Barkley, R.A. (1998B). Attention Deficit Hyperactivity Disorder, Second Edition. New York, NY: Guilford.)

FAS/FAE (Continued)

Rourke and Don indicated those with FAS/FAE have the following:

1. Lack of Stranger Anxiety and Caution
2. Cannot predict consequences
3. Poor language and social skills
4. “Cocktail Party Syndrome”

(Don, A., and Rourke, B.P. (1995). Fetal Alcohol Syndrome. In B.P. Rourke (Ed.), Syndrome of Nonverbal Learning Disabilities. New York, NY: Guilford, pp. 372-406.

More On Acquired AD/HD

10 to 15 % of those with AD/HD symptoms acquired them due to Prenatal Injuries:

1. Alcohol and/or Tobacco Exposure
2. Complications of Pregnancy
3. Premature Birth-Minor Brain Hemorrhaging

(Barkley, R.A. (2002B). ADHD in Oppositional Defiant Children. Seminar Presented, February 19-20, Phoenix, AZ.,
The Institute for Continuing Education, Fairhope, AL.)

More on Acquired AD/HD

3 to 5% of those with AD/HD symptoms have them due to Post Natal Injuries.

1. Brain damage (Especially to Frontal Lobe and/or Cerebellum)
2. Hypoxia
3. Meningitis
4. Lead Poisoning

(Barkley, R.A. (2002B). ADHD in Oppositional Defiant Children. Seminar Presented, February 19-20, Phoenix, AZ, The Institute for Continuing Education, Fairhope, AL.)

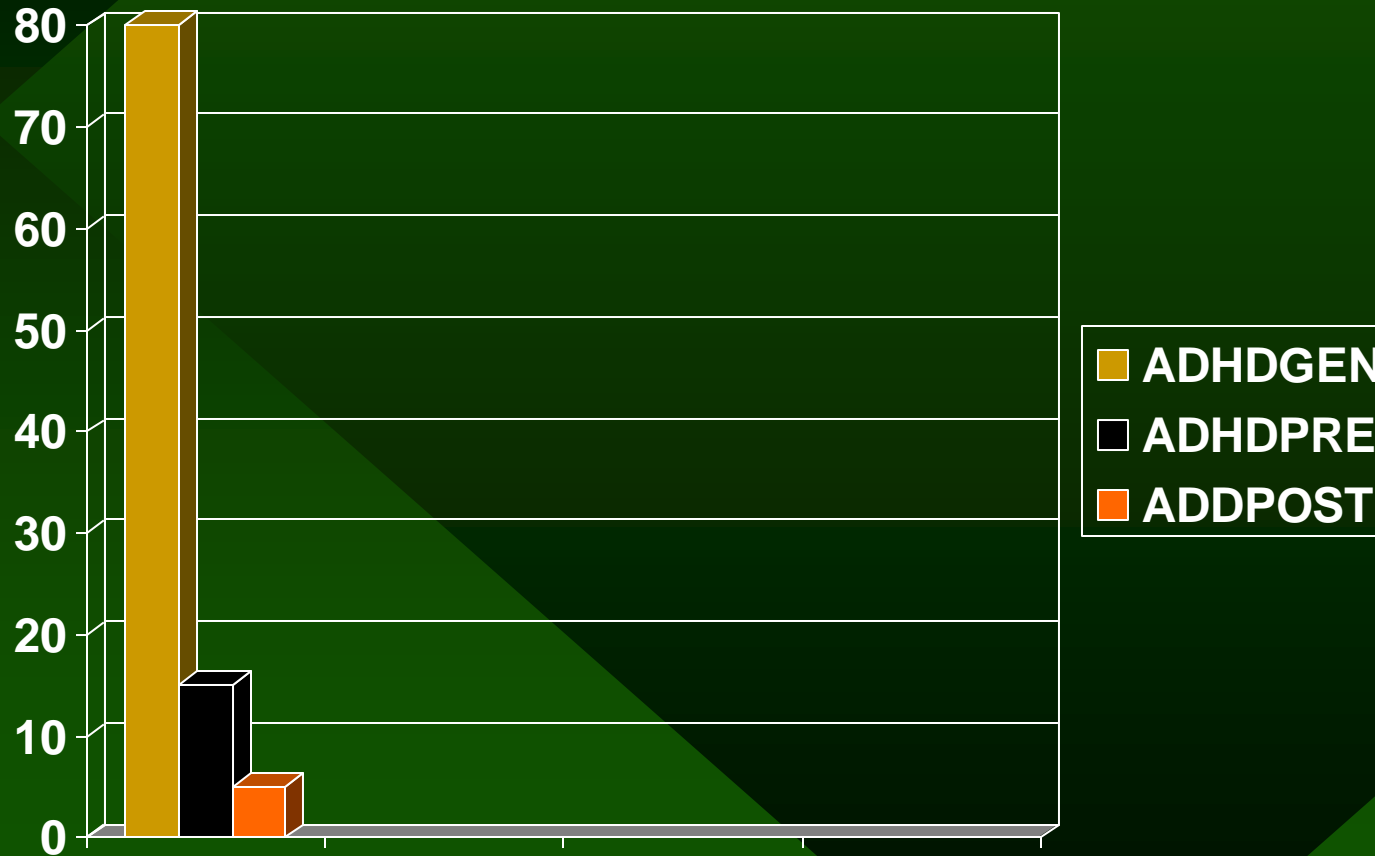
Post Natal Injuries (Continued)

5. Radiation and Chemotherapy for Lymphoblastic Leukemia

6. PANDAS

(Barkley, R.A. (2002B). ADHD in Oppositional Defiant Children. Seminar Presented, February 19-20, Phoenix, AZ., The Institute for Continuing Education, Fairhope, AL.)

Percentages of Etiologies of AD/HD



Those with Acquired AD/HD:

- Do not respond as well to stimulants as do those with Developmental AD/HD (50% vs. (92%).

MAY respond to rehabilitation (speech and language therapy, occupational therapy, etc.)

(Barkley, R.A. (2002) Mental and Medical Outcomes of AD/HD. Pre-Conference Institute, # TPA1, Thursday October 17, 2002, 14th Annual CHADD International Conference, Miami Beach, FL.)

PANDAS?

- Pediatric Autoimmune Neuropsychiatric Disorders Associated with Streptococcus

AKA

- * Pediatric-Infection-Triggered Autoimmune Neuropsychiatric Disorders (PITANDS)

PANDAS

These are terms, "...used to describe a subgroup of children who have tics, obsessions, and/or compulsions typically worsened dramatically following streptococcal infections or children who have no prior history of tics, obsessions and compulsions who suddenly explode in symptoms after a Group-A streptococcal infection" (p. 19).

(Packer, L.E. (June 6, 2002). Tourette Syndrome "Plus". From website: www.tourettesyndrome.net/pandas.htm, pp. 1-6.)

PANDAS

NIMH researchers have, "...identified a specific gene in those families that make a protein in nerve cell membranes resembling the protein in streptococcus cells. Once infected with streptococcus, the children in these families make anti-bodies to the protein, and begin to attack their own nerve cells. MRI studies of these children can show swelling in the brain areas during OCD symptoms" (p. 2).

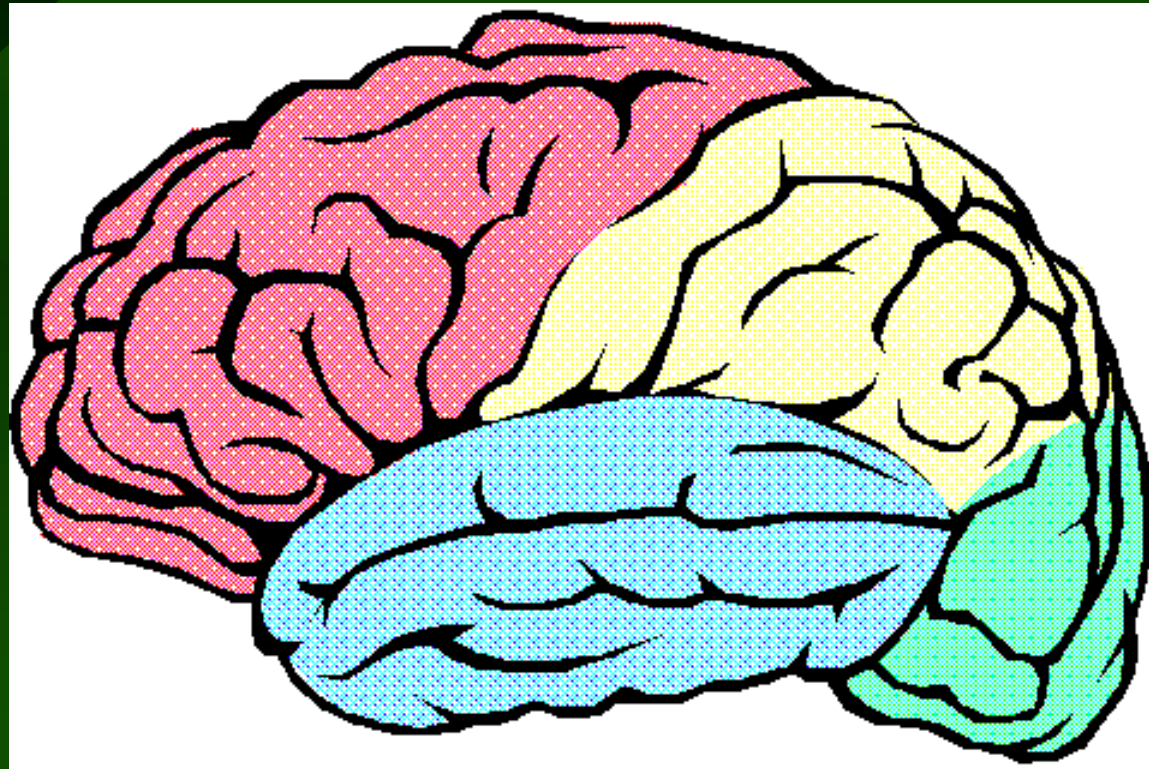
(Bonnet, K. (1997). Brain Imaging in Learning Disabilities and Developmental Disorders. 1997 Learning Disabilities Association International Conference Seminar Paper. Available at:www.ldnat.org/newsbriefs/articles.html)

PANDAS

- Can cause the Caudate Nucleus to swell as much as 24%
- The Caudate is being attacked by the antibodies created to attack the strep bacteria.

(Ratey, J.J. (2001). A Users Guide To the Brain: Perception, Attention, and the Four Theaters of the Brain. New York, NY: Vintage.)

Caudate Nucleus



PANDAS

- Relapsing-remitting symptom pattern:
 - a. emotional lability
 - b. rituals
 - c. cognitive deficits
 - d. oppositional behaviors
 - e. motoric hyperactivity

(Swedo, S.E, et. al. (2002, February). Pediatric Autoimmune Neuropsychiatric Disorders Associated with Streptococcal Infections: Clinical Description of the First 50 Cases. *American Journal of Psychiatry*, 159 (2), p. 320. Taken from the National Library of Medicine Website: www.ncbi.nlm.nih.gov/htbin-)

Treatments of *PANDAS*

- Plasma Exchange
- Intravenous injection of immunoglobulin
- Antibiotics

(Packer, L.E. (June 6, 2002). Tourette Syndrome “Plus”. From website:
www.tourettesyndrome.net/pandas.htm, pp. 1-6.)

PANDAS

Adult cases of PANDAS have been reported in the literature.

(Packer, L.E. (June 6, 2002). Tourette Syndrome “Plus”. From website: www.tourettesyndrome.net/pandas.htm, pp. 1-6.)

40% of those with PANDAS have AD/HD Symptoms.

Arnold, L.E. (2002). Contemporary Diagnosis and Management of Attention-Deficit/Hyperactivity Disorder, Second Edition. Newtown, PA: Handbooks in Health Care, p. 152.)

A Moment for Quiet Reflection.



European Perspectives of AD/HD

Disorder of Attention Motor Control and Perception (DAMP):

Swedish researchers have been doing longitudinal research since 1977 with a group of children with AD/HD and Developmental Coordination Disorder which they view as one disorder called DAMP. At age 22, 30% of the children still met criteria for AD/HD and DCD.

(Gillberg, C. (2001). ADHD with Comorbid Developmental Coordination Disorder: Long-Term Outcome in a Community Sample, ADHD Report, 9 (2), pp. 5-9)

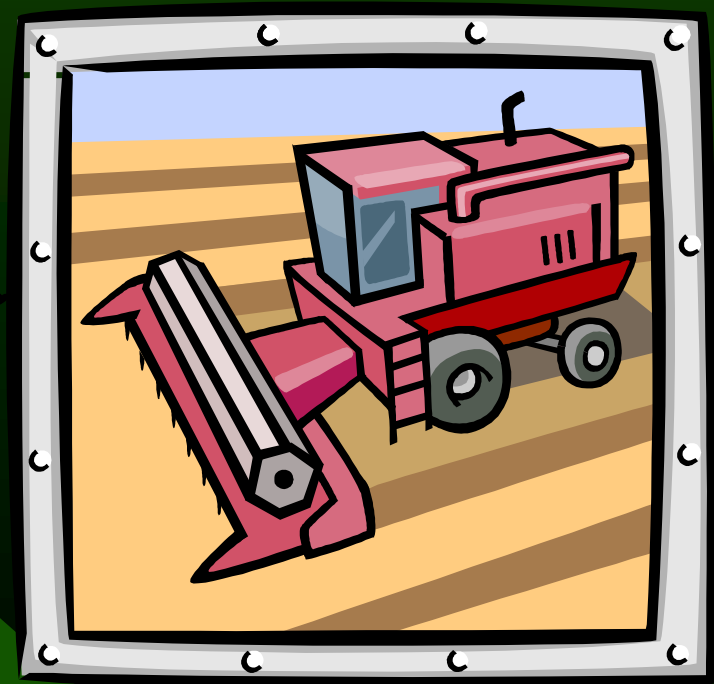
(Gillberg, C., and Kadesjo, B. (2000). Attention-Deficit/Hyperactivity Disorder and Developmental Coordination Disorder. In T.E. Brown (Ed.), Attention-Deficit Disorders and Comorbidities in Children, Adolescents and Adults. Washington, DC: American Psychiatric Press, pp. 393-406.)

Is AD/HD Just “Hunters in a Farmers World?”

Hartman’s Book:

ADD: A Different Perception – “The Hunter in a Farmer’s World Book”

(Hartman, T. (2002, June). Hunter in a Farmer’s World. From website: www.crforum.com/addapt.shtml)



Counter Arguments

“We can suppose that with his bigger brain Homo erectus had a greater attention and memory span. By being able to remember information from his own and his fellows’ past hunting experiences, he could amass knowledge of animal behavior, plan ahead, work out strategies, and roam further than his forebears without getting lost. Furthermore, he could cooperate more subtly with his fellow hunters; and this increased the chances of him making the kill.

Counter Arguments (Continued)

With better cooperative tactics, human hunters in organized groups could take on much larger herd animals than *habilis* had dared to. There was a definite advantage in trying for big game; more meat could be obtained for less time and labor” (p. 255).

(Campbell, B.G. (1976). Humankind Emerging. Boston, MA: Little Brown and Company.)

Counter Arguments (Continued)

“...ADHD should be found to reduce the survival and reproductive advantage conveyed by the executive functions and self-regulation when observed to operate over substantial time periods of an evolutionary scale” (p. 304).

(Barkley, R.A. (1997). ADHD and the Nature of Self-Control. New York, NY: Guilford.)

Counter Argument (Continued)

“It is a question of scientific Fact and the facts say clearly that ADHD is a real disorder” (p. 6).

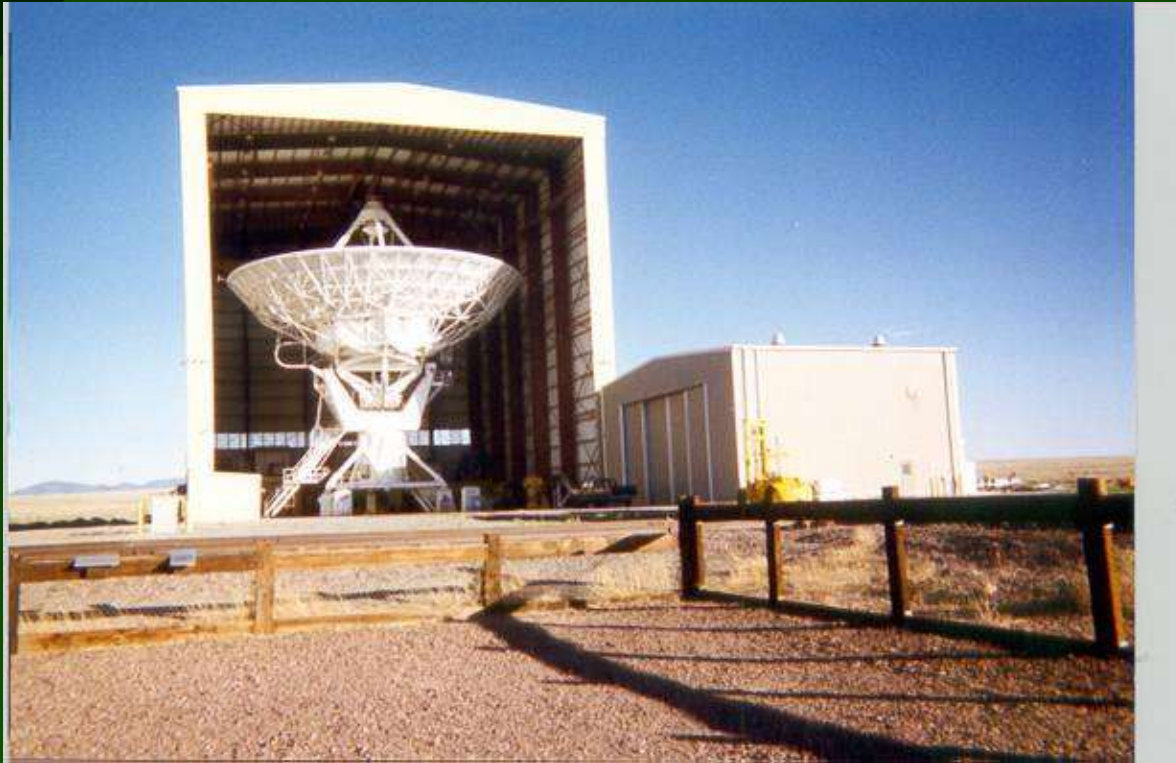
(Barkley, R.A. (2000). More On Hunting, Evolution and ADHD. ADHD Report, 8 (2), pp. 1-7.)

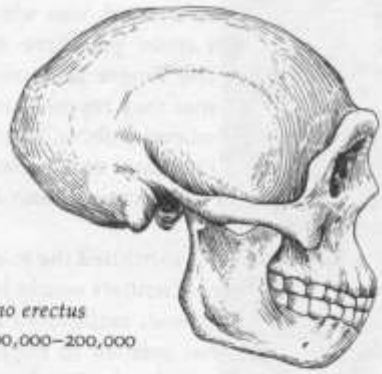
Counter Argument (Continued)

- “ADHD is not something people want to have”
- “ADHD is as profound a disorder as Autism. But, its not a terminal illness”

(Barkley, R.A. (1998A). ADHD in Children, Adolescents, and Adults: Diagnosis, Assessment, and Treatment. New England Educational Institute, Cape Cod Symposium, August, Pittsfield, MA.)

Contact?





Homo erectus
1,500,000–200,000



Homo sapiens neanderthalensis
200,000–50,000



Homo sapiens sapiens
50,000–



Johanson, D., and Maitland, E. (1981). Lucy: The Beginnings of Humankind. New York, NY: Warner, p. 33.)

Are those with AD/HD Just those who like to Migrate in the Population?

Ding, Y.C., et. al. (2002). Evidence of Positive Selection Acting at the Human Dopamine Receptor D4 Gene Locus. PNASUSA, 99 (1), pp. 309-314.

AD/HD and Migration?

- 40,000 years ago Homo Sapien Sapien went “Out of Africa”
- Overabundance of the DRD4-7 allele
- Particularly in those who migrated the furthest
- Novelty Seeking drove those with AD/HD “Out of Africa”

Migration and AD/HD?

- Those with AD/HD were more attractive to mates.
- AD/HD may have been a positive trait 10,000 to 40,000 years ago.
- The DRD4-7 allele is most common in Native cultures in South America, etc.
- This lends weight to the “Out of Africa” Theory.

AD/HD and Migration (Continued)

“For early onset disorders (Such as autism, AD/HD, etc.) we suggest entertaining the possibility that predisposing alleles in fact are under positive selection and only result in deleterious effects when combined with other environmental/genetic factors...” (Ding, et.al. (2002).

AD/HD and Migration (Continued)

Harpending and Cochran (2002) further interpreted Ding, et. al. (2002) research and stated the following:

Harpending, H., and Cochran, G. (2002). In our Genes. Proceedings of the National Academy of Sciences of the United States of America, 99 (1), pp. 10-12.

AD/HD and Migration (Continued)

“...it is entirely possible that some psychological traits are adaptive yet, because they are irritating or undesirable are called mental illness. There is an important distinction to be made between fitness reducing mental illness, behaviors that can never have been adaptive, and psychological syndromes that we happen not to like...Another hint that 7R does not cause pathology in an evolutionary sense is the finding that children diagnosed with ADHD often show specific neuropsychological deficits and those bearing 7R and diagnosed ADHD do not...” (p. 10)

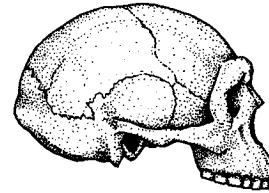


Neanderthal

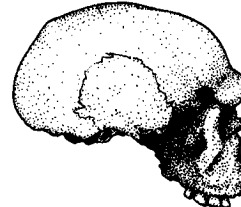


Figure 14-5 The full reconstructions of Neandertal were even more misleading. The hunched shoulders and apelike posture are quite incorrect; worse still is the bovine expression, for the Neandertal people were of considerable intelligence.

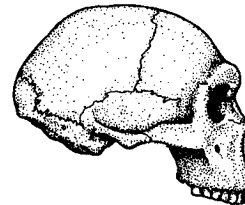
REASSESSMENT OF NEANDERTAL



Homo erectus



Early *Homo sapiens* (Steinheim)



Late Neandertal

Figure 14-10 *Homo erectus*, early *Homo sapiens*, and Neandertal form a series of variable populations that succeeded each other in many parts of the Old World. Here they are represented by typical skulls.

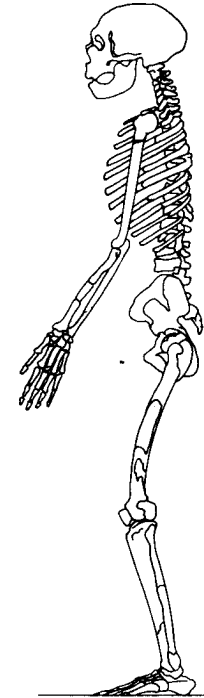


Figure 14-4 Marcellin Boule overlooked the effects of arthritis when he reconstructed the skeleton from La Chapelle-aux-Saints and so implied that all Neandertal people walked with stooped gait and bended knees.

Counter to AD/HD and Migration

- Average cranial capacity of Homo Sapien Neanderthalensis- 1600 cc
- Average cranial capacity of Homo Sapien Sapien –1330 cc
- H.S. Neanderthalensis is extinct
- Don't know why.

Campbell, B.G. (1976). Humankind Emerging. Boston, MA: Little Brown and Company.

Speculation Regarding Neanderthal's Extinction

“Might the brain growth exhibited by Neanderthal man been in the parietal and occipital lobes and the major brain growth of our ancestors in the frontal and temporal lobes? Is it possible that Neanderthal developed quite a different mentality than ours, and our superior linguistic and anticipatory skills enabled us to destroy our husky and intelligent cousins?”

(Sagan, K. (1977). The Dragons of Eden: Speculations in the Evolution of Human Intelligence. New York, NY: Random House.)

Neandertal VS CroMagnon

- Neandertal was not, “... a stupid, brutish lout” (p. 183).
- 50,000 years ago CroMagnon experienced a subtle mutation that reorganized their brain. They could hold much more information in their working memories. Neandertals did not experience this.

Bower, B. (September 18, 2004). In the Neandertal Mind: Our Evolutionary Comrades Celebrate Vaunted Intellects Before Meeting A Memorable Demise. Sciencenews 166 (12), pp. 183-184

Neandertal VS CroMagnon

- Neandertals' limited working memory probably caused them to talk less and to engage in regimented behaviors more. They were behaviorally less adaptable to changes in their environment. They could not keep up and by 30,000 years ago they were extinct.
- The technical intelligence of both species was the same, but Neandertals had very weak symbolic capacity.

Bower, B. (September 18, 2004). In the Neandertal Mind: Our Evolutionary Comrades Celebrate Vaunted Intellects Before Meeting A Memorable Demise. Sciencenews 166 (12), pp. 183-184

Extinction (continued)

- Kill site data
- Only 50% of those with AD/HD have the DRD4-7 Allele; what about those with the DAT-1, D2, etc.?
- Impulsivity does not necessarily equal aggression.
- If AD/HD is not a “Fitness Reducing Mental Illness” why is there evidence that those with AD/HD may have a shorter life expectancy?

(Barkley, R.A. (1997). AD/HD and the Nature of Self-Control. New York, NY: Guilford.)

COULD IT BE RISK TAKING BEHAVIOR?



Extinction (Continued)

Neuropsychological batteries/tests are designed to find brain damage not developmental neurobiological disorders.

(Barkley, R.A. (2002B). ADHD and Oppositional Defiant Children. Seminar presented February 19-20, Phoenix, AZ, The Institute for Continuing Education, Fairhope, AL.)

Extinction (Continued)

- Out-of-Africa Evolutionary Theory vs. Multiregional Evolutionary Theory

Brown, S.J. (2002). Neanderthals and Modern Humans-A Regional Guide, From website: www.neanderthal-modern.com, pp. 1-6.



Photograph by Chris Barker. Copyright © Marshall Cavendish Ltd.

A Pleistocene summit. Left to right: *Homo habilis* (in an inadequate state of repair), *Homo erectus*, Neanderthal man, Cro-Magnon man, and *Homo sapiens*.

What's the point of all this?

**LET'S LEAVE THE QUESTION OF THE
GENETIC RELEVANCE OF AD/HD UNTIL
MORE BASIC EVOLUTIONARY QUESTIONS
ARE ANSWERED. UNTIL WE DO THIS WE
MAY DO MORE HARM THAN GOOD!**



Kevin T. Blake, Ph.D., P.L.C.

1/7/2016
206

Break Time! Please be back in 15 Minutes!



Welcome Back! Is This Kevin's House?



Comorbidities and AD/HD

- 75% of AD/HD Adults Referred to Clinics have a Comorbidity

(Barkley, R.A. (1996). ADHD in Children Adolescents and Adults: Diagnosis, Treatment and Assessment. New England Educational Institute, Cape Cod Symposia (August), Pittsfield, MA.)

- 20% of AD/HD Adults have Two or More Comorbidities

(Hechtman, L. (2000). Subgroups of Adult Outcome of Attention-Deficit/Hyperactivity Disorder. In T.E. Brown (Ed.), Attention-Deficit Disorders and Comorbidities in Children, Adolescents, and Adults. Washington, D.C.: American Psychiatric Press:.)

Comorbidities (Continued)

Barkley wrote, “Up to 67% of ADHD children as adults are free of psychiatric diagnoses” (p. 207).

(Barkley, R.A. (1998). Attention Deficit Hyperactivity Disorder, Second Edition. New York, NY: Guilford.)

Brown Estimated that 50% of AD/HD adult had Comorbidities.

(Brown, T.E. (1995). Differential Diagnosis of ADD Versus ADHD in Adults. In K. Nadeau (Ed.), A Comprehensive Guide to Attention Deficit Disorders in Adults. New York, NY: Bruner Mazel, pp. 93-108.)

Comorbidities and AD/HD

Pliszka indicated the following regarding Comorbidities of adults with AD/HD:

Prevalence rates of adults with ADHD

- Antisocial Personality Disorder 12% to 27%
- Alcohol and Drug Dependence 27% to 46%
- Major Depressive Disorders 17% to 31%
- Anxiety Disorders 32% to 50%

(Pliszka, S.R. (2000). Paying Attention to ADHD: Treatment Challenges with Comorbid Conditions. Philadelphia, PA: Medical Educational Systems.)

AD/HD and Comorbidity (Continued)

Goldstein wrote, “Adult outcome of individuals with ADHD has not been proved to be solely tied to particular ADHD variables or treatment but likely interacts with a variety of life factors, with family issues paramount” (p. 73).

Goldstein, S. (1997). Managing Attention and Learning Disorders in Late Adolescence and Adulthood: A Guide for Practitioners. New York, NY: John Wiley and Sons.)

Comorbidity and AD/HD

Weiss and Hechtman after a 15 year follow-up study came up with the following groups that AD/HD adult fall into:

1. 30 to 40% Fairly Normal Group
2. 40 to 50% Significant Hyperactivity, and Social/Emotional/Interpersonal Problems
3. 10% Severely Antisocial and/or Mentally Disturbed

(Weiss, G., and Hechtman, L. (1993). Hyperactive Children Grown-Up (Second Edition). New York, NY: Guilford.)

Comorbidity and AD/HD (Continued)

- Those with Combined Type AD/HD have more Externalizing Disorders
- Those with Inattentive AD/HD **MAY** have more Internalizing Disorders

(Milich, R., et. al. (2002) The Predominately Inattentive Subtype—Not a Subtype of AD/HD. ADHD Report, 10 (1), pp. 1-6.)

Comorbidities (Continued)

Hynd stated 40% of those with Inattentive AD/HD will have an Internalizing Disorder.

(Hynd, G. (2002). ADHD and Its Association with Dyslexia: Diagnostic and Treatment Challenges. Paper presented at the 53rd Annual International Dyslexia Association Conference, Atlanta, GE, November 16.)

How to Document a Psychiatric Disability for Accommodations

(July, 2001). Guidelines for Documentation of Psychiatric Disabilities in Adolescents and Adults. Office of Disability Policy Educational Testing Service, Princeton, NJ 08541

Depression and AD/HD

NORMAL FORMS OF DEPRESSION

1. “The Blues”- Less than two weeks of depressed mood associated with an environmental event.

* Ratey and Johnson spoke of “Shadow Syndromes” which appear as, “...behavior that fits only part of a syndrome or disorder, but not all” (p. 13).

(Ratey, J.J., and Johnson, C. (1997). Shadow Syndromes. New York, NY: Pantheon.)

Normal Depression and AD/HD

2. Bereavement – The normal grief reaction to a traumatic life event (i.e. death of a loved one, being diagnosed with a disorder, etc.).
 - * Symptoms: Loss of interest in things one typically finds pleasurable, depression, sluggishness, problems with sleep and/or appetite, guilt, suicidal thoughts.
 - * Complicated Bereavement- includes the above symptoms with a Major Depressive Episode.

Grief and AD/HD

Goldstein spoke of adults with LD and/or AD/HD who struggle with.. “prolonged grief. It has been reportedly suggested that adults with AD/HD and LD struggle with grief over their perceived incompetence and a lifetime difficulty with meeting everyday expectations” (p. 260).

(Goldstein, S. (1997). Managing Attention and Learning Disorders in Late Adolescence and Adulthood: A Guide for Practitioners. New your, NY: John Wiley and Sons.)

Grief and AD/HD (Continued)

Murphy and LeVert wrote of the stages of coping with being diagnosed AD/HD:

Stage 1- Relief and Optimism

Stage 2- Denial

Stage 3- Anger and Resentment

Stage 4- Grief

Stage 5- Mobilization

Stage 6- Accommodation

(Murphy, K.R., and LeVert, S. (1995). Out of the Fog. New York, NY: Hyperion.)

Grief and AD/HD



Some AD/HD adults may not be able to find the words to express their grief due to **“ALEXITHYMIA”**.

What is ALEXITHYMIA?

Coleman wrote, "Grey emotional flatness exemplifies what psychiatrists call alexithymia...Such people lack words for feelings. Indeed they seem to lack feelings altogether, although this may actually be because of their inability to express emotion rather than an absence of emotion altogether" (p. 51).

(Coleman, D. (1995). Emotional Intelligence: Why It Can Matter More Than I.Q. New York, NY: Bantam.)

Alexithymia (Continued)

Coleman continued, “..the alexithymic’s dilemma: having no words for feelings means not making the feelings your own” (p. 53).

(Coleman, D. (1995). Emotional Intelligence: Why It Can Matter More Than I.Q. New York, NY: Bantam.)

Alexithymic's

1. Tend not to have fantasies, no feelings, and sharply limited emotional vocabulary.
2. They have colorless dreams.
3. They cannot tell bodily sensations from emotions and are baffled by them.
4. They cannot make decisions because they have no “Gut Feelings”

(Coleman, D. (1995). Emotional Intelligence: Why It Can Matter More Than I.Q. New York, NY: Bantam.)

Alexithymia

Lane wrote, “Several neuroimaging studies reveal that an area of the medial prefrontal cortex very close to that identified in our attention to emotional experience study has been implicated during the performance of theory of mind tasks...these findings suggest that the neural substrates of the mental representation of one’s own and other’s mental states are closely related” (p. 18). Lane continued that several studies of brain injured individuals when coupled with the above appeared to indicate, “...that successful social adaptation requires the ‘dual task’ ability to stay in touch with the needs of others while paying due attention to one’s own needs” (p. 20).

(Lane, R. (2000). Neural Correlates of Conscious Emotional Experience. In L.R. Lane, et. al. (Eds.), Cognitive Neuroscience of Emotion. New York, NY: Oxford University Press, pp. 345-370.)

Alexithymia MAY BE A NEUROBIOLOGICAL DISORDER!

***25% OF THOSE WITH
AD/HD HAVE
ALEXITHYMIA.***

(Ratey, J.J., Hallowell, E.M., and Miller, A.C. (1995). Relationship Dilemmas for Adults with ADD: The Biology of Intimacy. In K. Nadeau (Ed.), A Comprehensive Guide to Attention Deficit Disorder In Adults. New York, NY: Bruner Mazel, pp. 218-235.)



The LD/AD/HD “Identity”

Rodis offered the ***Seven Stages of Identity Formation for Persons with LDs:***

1. The Problem-Without-A-Name Stage
2. Diagnosis
3. Alienation
4. Passing

Identity (Continued)

5. Crisis and Reconfrontation

6. “Owning and Outing”

7. Transcendence

(Rodis, P., Garrod, A., and Boscardin, M.L. (2001). Learning Disabilities and Life Stories. Boston, MA: Allyn and Bacon.)

Barkley said Affective Disorders are common in AD/HD Adults

- 30-35% Have Generalized Anxiety Disorder
- 25-35% Had Major Depressive Episode
- >50% Dysthymic Disorder

(Barkley, R.A. (1996). ADHD in Children, Adolescents, and Adults: Diagnosis, Assessment, and Treatment. New England Educational Institute, Cape Cod Symposia, August, Pittsfield, MA.)



Dysthymia and AD/HD

- Wender, Reimherr and Wood indicated that almost 70% of AD/HD adults have Dysthymia.
- Murphy indicated about 35% of AD/HD adults meet criteria for Dysthymia of Major Depressive Disorder during their lifetimes.

(Wender, P.H., Reimherr, F.W., and Wood, D.R. (1985). A Controlled Study of Methylphenidate in the Treatment of Attention Deficit Disorder, Residual Type, In Adults. American Journal of Psychiatry, 141, 547-552.)

(Murphy, K.R. (1978). Psychological Counseling of Adults with ADHD. In R.A. Barkley (Ed.), Attention Deficit Disorder, Second Edition. New York, NY: Guilford.)

Dysthymia and AD/HD

Hynd indicated 17% of those with Inattentive AD/HD have Dysthymia.

(Hynd, G. (2002). ADHD and Its Association with Dyslexia: Diagnostic and Treatment Challenges. Paper presented at the 53rd Annual International Dyslexia Association Conference, Atlanta, GE, November 16.)

Major Depressive Disorder and AD/HD

Spencer et. al. reported, “The rate of major depressive disorder among the adults with ADHD was similar to the rate in children...” (p. 97).

With Major Depressive Disorder

1. **Adult ADHD group 31%**
2. **Child ADHD group 29%**
3. **Adult Control group 5%**

(Spencer, T. , et. al. (2000). Attention-Deficit/Hyperactivity Disorder With Mood Disorders. In T.E. Brown (Ed.), Attention – Deficit Disorders and Comorbidities in Children Adolescents and Adults. Washington, DC: American Psychiatric Press, pp. 79-124.)

Major Depression and AD/HD

Barkley reported 25% of those with AD/HD met criteria for Major Depression and most had a childhood history of Conduct Disorder. He speculated there may be a genetic link between AD/HD and major depression.

(Barkley, R.A. (1996). ADHD in Children, Adolescents, and Adults: Diagnosis, Assessment, and Treatment. New England Educational Institute, Cape Cod Symposia, August, Pittsfield, MA.)

Major Depression and AD/HD

Hynd indicated 4% of those with Inattentive AD/HD will meet criteria for Major Depression.

(Hynd, G. (2002). ADHD and Its Association with Dyslexia: Diagnostic and Treatment Challenges. Paper presented at the 53rd Annual International Dyslexia Association Conference, Atlanta, GE, November 16.)

Major Depression and AD/HD

- Only the AD/HD children with Major Depression have problems with Low Self-Esteem
- Most AD/HD Children have inflated Self-Esteem.
- Adults with AD/HD may become demoralized.

Barkley, R.A. (2002) Mental and Medical Outcomes of AD/HD. Pre-Conference Institute, # TPA1, Thursday October 17, 2002, 14th Annual CHADD International Conference, Miami Beach, FL.

Suicide and AD/HD

10% will have attempted in the last 3 years

5% will die from attempts (Barkley, 1998)

There is even a higher rate with those with comorbid Antisocial Personality Disorder (Weiss and Hechtman, 1986).

(Barkley, R.A. (1998). Attention Deficit Hyperactivity Disorder, Second Edition. New York, NY: Guilford.)

(Weiss, G., and Hechtman, L. (1986). Hyperactive Children Grown-Up. New York, NY: Guilford.)

Bipolar Disorder and AD/HD

Wilens, Spencer and Prince stated 10% of AD/HD adults will have comorbid Bipolar Disorder.

(Wilens, et. al. (1997). Diagnosing ADD in Adults. Attention!, 3 (4), pp. 27-33.)

Bipolar Disorder and AD/HD

- No resolution on this issue. No Bipolar in longitudinal studies. Only clinic referred.
- 95% of children with Bipolar Disorder are AD/HD
- But, not the other way around.

(Barkley, R.A. (2002) Mental and Medical Outcomes of AD/HD. Pre-Conference Institute, # TPA1, Thursday October 17, 2002, 14th Annual CHADD International Conference, Miami Beach, FL.)

Seasonal Pattern Specifier for Mood Disorder (Seasonal Affective Disorder)

Rosenthal wrote, “I have heard anecdotal reports of seasonal variations in ADHD, but there are no formal studies on these topics.”

(Rosenthal, N.E. (November, 1991). Personal Communication.)

RELAX



Generalized Anxiety Disorder

Roffman wrote, “Adults with LD/ADHD often experience pressure as they work to cope with their symptoms. Anxiety develops out of such day-to-day occurrences as the loss of yet another set of keys...” (p. 49).

(Roffman, A.L. (2000). Meeting the Challenge of Learning Disabilities in Adulthood. Baltimore, MD: Paul H. Brookes.)

Brown indicated anxiety is a common symptom experienced by adults with Inattentive AD/HD.

(Brown, T.E. (1996). Brown Attention-Deficit Disorder Scales. San Antonio, TX. The Psychological Corporation.)

Anxiety!



Generalized Anxiety Disorder and AD/HD

- Barkley reported 24% to 43% of AD/HD adults have “GAD”.
- Barkley reported 50% of AD/HD adults will have trouble with GAD in their lifetimes.

(Barkley, R.A. (1998). Attention Deficit Hyperactivity Disorder, Second Edition. New York, NY: Guilford.)

(Barkley, R.A. (1996). ADHD in Children, Adolescents, and Adults: Diagnosis, Assessment, and Treatment. New England Educational Institute, Cape Cod Symposium, August, Pittsfield, MA.)

Social Phobia and AD/HD

- Murphy stated AD/HD adults are at risk for Social Phobia.
- Tzelepis, Schubiner, and Warbasse reported 12% of AD/HD adults meet criteria for Social Phobia.

(Murphy, K.R., and LeVert, S. (1995). Out of the Fog: Treatment Options for Adult Attention Deficit Disorder. New York, NY: Hyperion.

(Tzelepis, A., Scherbiner, H., and Warbasse, L.H. (1995). Differential Diagnosis and Psychiatric Comorbidity Patterns In Adult Attention Deficit Disorder. In K. Nadeau (Ed.), A Comprehensive Guide to Attention Deficit Disorder in Adults: Research, Diagnosis and Treatment. New York, NY: Bruner Mazel, pp. 35-57.)

Avoidant Disorder

Hynd indicated 4% of those with Inattentive AD/HD will meet criteria for Avoidant Disorder.

(Hynd, G. (2002). ADHD and Its Association with Dyslexia: Diagnostic and Treatment Challenges. Paper presented at the 53rd Annual International Dyslexia Association Conference, Atlanta, GE, November 16.)

Posttraumatic Stress Disorder and AD/HD

- Significant symptom overlap
- Assess for trauma in AD/HD clients
- Repeated classroom traumas may be most significant
- When did symptoms emerge?

(Utley-Adlizzi, J. (2002). Posttraumatic Stress in Women with AD/HD. In P.O. Quinn and K.R. Nadeau (Eds.), Gender Issues and AD/HD: Research, Diagnosis and Treatment. Silver Spring, MD: Advantage, pp.365-393.)

Obsessive Compulsive Disorder and AD/HD

- Brown wrote, “Thus far, there have been no published reports of the incidence of OCD in adults with ADDs or of ADDs in adults with OCD, But Weiss et.al.... Have provided case descriptions of this overlap” (p. 216).
- Brown wrote the overlap of OCD and AD/HD in children is as high as 33%.

(Brown, T.E. (2000). Attention-Deficit Disorders and Comorbidities in Children, Adolescents, and Adults. Washington, DC: American Psychiatric Press.)

OCD and AD/HD

- Barkley indicated 4% to 14% of AD/HD adults have OCD.
- Barkley cited research indicating, “OCD was more common (12%) only among those adults with a comorbid tic disorder whereas the figure for those ADHD adults without tics was approximately 2%” (p. 214)

(Barkley, R.A. (1998). Attention Deficit Hyperactivity Disorder, Second Edition. New York, NY: Guilford.)

OCD and AD/HD

- Barkley Concluded, “...OCD does not appear to be significantly associated with ADHD” (p. 214).
- Wodrich and Thull reported approximately 20% of those with OCD will develop Tics.

(Barkley, R.A. (1998). Attention Deficit Hyperactivity Disorder ,Second Edition. New York, NY: Guilford.)

(Wodrich, D., and Thull, L. (1991). Tourette’s Syndrome: Its Relationship to Obsessive Compulsive Disorder and Distinctive Thinking. Paper presented at the Arizona Psychological Association Annual Conference, Scottsdale, AZ, October 25, 1991.)

OCD and AD/HD

- AD/HD and OCD can be comorbid states.
- AD/HD typically manifests first.
- The comorbidity may lower functioning.
- Both disorders need to be treated and the AD/HD may make the behavioral treatments for OCD not as effective.

((February, 2003). ADHD Symptoms with OCD Represent a True Comorbid State. ADHD Report, 11, p. 12/Summary of: Geller, D.A., et. al. (2002). Attention- Deficit/Hyperactivity Disorder in Children and Adolescents with Obsessive Compulsive Disorder: Fact of Artifact? Journal of the American Academy of Child and Adolescent Psychiatry, 41, pp. 52-58.)

OCD: Important Points

- Christensen stated 66% of those with OCD hide it, 44% hid it over 10 years and it take 17 years from onset of OCD to receive proper treatment.
- Biederman, et. al. speculated AD/HD with comorbid anxiety may be an AD/HD subtype.

(Christensen, D.D. (1997). Obsessive Compulsive and Impulse Control Disorder. Update on Neuropsychiatric Disorders Symposia (February 6, 1997), Tucson, AZ.)

(Biederman, et. al. (1991) Comorbidity of Attention Deficit Hyperactivity Disorder with Conduct, Depressive, Anxiety and Other Disorders. American Journal of Psychiatry, 148, pp. 564-577.)

Obsessive-Compulsive Personality Disorder and AD/HD

Tzelepis, Schubiner and Warbasse noted a significant percentage of AD/HD adults who met criteria for Obsessive-Compulsive Personality Disorder. In most cases they considered it “compensatory compulsivity”.

(Tzelepis, A., Scherbner, H., and Warbasse, L.H. (1995). Differential Diagnosis and Psychiatric Comorbidity Patterns In Adult Attention Deficit Disorder. In K. Nadeau (Ed.), A Comprehensive Guide to Attention Deficit Disorder in Adults: Research, Diagnosis and Treatment. New York, NY: Bruner Mazel, pp. 35-57.)

Oppositional Defiant Disorder and AD/HD

- 50% to 67% of AD/HD have ODD
- ODD is NOT limited to childhood and is more persistent than AD/HD
- Hot headed, angry, using anger as a social tool

(Barkley, R.A. (2002) Mental and Medical Outcomes of AD/HD. Pre-Conference Institute, # TPA1, Thursday October 17, 2002, 14th Annual CHADD International Conference, Miami Beach, FL.)

Personality Disorders and AD/HD

- 11-22% of AD/HD have Antisocial Personality Disorder
- 11% Histrionic Personality Disorder
- 19% Passive Aggressive Personality Disorder
- 14% Borderline Personality Disorder

(Barkley, R.A. (2002). ADHD and Oppositional Defiant Children. Seminar presented by the Institute for Continuing Education, Fairhope, AL, in Phoenix, AZ, February 19-20, The Institute for Continuing Education, Fairhope, AL.)

Borderline Personality Disorder and AD/HD

1. Kreisman and Strauss wrote those with LD and/or AD/HD may be more at risk for Borderline Personality Disorder than the general population.
2. Some with BPD have EEGs that indicate temporal lobe activity.

(Kreisman, J.J., and Strauss, H. (1989). I Hate You-Don't Leave Me: Understanding the Borderline Personality. New York, NY: Avon.)

Borderline Personality Disorder and AD/HD

- Conners and Jett said the overlap of the two is especially high in males.
- Goldstein speculated AD/HD adults are at higher risk than “normals” for BPD, but BPD is not necessarily caused by AD/HD.
- Barkley stated BPD inpatients have a high rate of AD/HD.

(Conners, C.K., and Jett, J.L. (1999). Attention Deficit Hyperactivity Disorder (In Adults and Children): The Latest Treatment Strategies. Kansas City, MO: Compact Clinicals.)

(Goldstein, S. (1997). Managing Attention and Learning Disorders in Late Adolescence and Adulthood: A Guide for Practitioners. New York, NY: John Wiley and Sons.)

(Barkley, R.A. (1996). ADHD in Children, Adolescents, and Adults: Diagnosis, Assessment, and Treatment. Cape Cod Symposia, August, Pittsfield, MA.

BPD and AD/HD

Tzelipis, et. al. said a subset of those with AD/HD develop BPD. These people have early onset of emotional problems and functional difficulties, including academic problems, hyperactivity, aggressive antisocial behavior as well as substance abuse.

(Tzelepis, A., Scherbiner, H., and Warbasse, L.H. (1995). Differential Diagnosis and Psychiatric Comorbidity Patterns In Adult Attention Deficit Disorder. In K. Nadeau (Ed.), A Comprehensive Guide to Attention Deficit Disorder in Adults: Research, Diagnosis and Treatment. New York, NY: Bruner Mazel, pp. 35-57.)

Antisocial Personality Disorder and AD/HD

- Hechtman wrote AD/HD adults who had comorbid ODD and CD prior to their majority will have significant APD and psychiatric problems in Adulthood.
- Conners and Jett said those with AD/HD are 10 times as likely to have APD than non-AD/HDs.
- Tzelepis, et. al. wrote 60% of AD/HD adults also have APD.

(Hechtman, L. (2000). Subgroups of Adult Outcome of Attention-Deficit/Hyperactivity Disorder. In T.E. Brown (Ed.), Attention-Deficit Disorders and Comorbidities in Children, Adolescents, and Adults. Washington, DC: American Psychiatric Press.)

(Conners, C.K., and Jett, J.L. (1999). Attention Deficit Hyperactivity Disorder (In Adults and Children): The Latest Treatment Strategies. Kansas City, MO: Compact Clinicals.)

(Tzelepis, A., Scherbiner, H., and Warbasse, L.H. (1995). Differential Diagnosis and Psychiatric Comorbidity Patterns In Adult Attention Deficit Disorder. In K. Nadeau (Ed.), A Comprehensive Guide to Attention Deficit Disorder in Adults: Research, Diagnosis and Treatment. New York, NY: Bruner Mazel, pp. 35-57.)

APD and AD/HD

Barkley stated 40% to 60% of those in prison have AD/HD. AD/HD is not the cause of the sociopathy; its only one factor.

(Barkley, R.A. (1996). ADHD in Children, Adolescents, and Adults: Diagnosis, Assessment, and Treatment. New England Educational Institute, Cape Cod Symposia, August, Pittsfield, MA.

Substance Abuse and AD/HD

Wilens, et. al. wrote, “Substance use disorders occur at a higher rate in individuals with ADHD than in psychiatrically healthy adolescents; conversely ADHD is more prevalent in individuals with substance use disorders” (p. 320).

(Wilens, et. al. (2000). Attention-Deficit/Hyperactivity Disorder With Substance Use Disorders. In T.E. Brown (Ed.), Attention-Deficit Disorders and Comorbidity in Children, Adolescents, and Adults. Washington, DC: American Psychiatric Press, pp. 319-340.)

Wilens, et. al. indicated:

- AD/HD adults with substance abuse have more severe and earlier onset of problems.
- AD/HD puts one at risk for alcohol/drug abuse and dependence.
- AD/HD adults have twice the risk of having a substance use disorder than the non-AD/HD.
- Comorbid CD/ASPD and/or Bipolar Disorder makes the Substance Abuse Disorder much greater.

(Wilens, et. al. (2000). Attention-Deficit/Hyperactivity Disorder With Substance Use Disorders. In T.E. Brown (Ed.), Attention-Deficit Disorders and Comorbidity in Children, Adolescents, and Adults. Washington, DC: American Psychiatric Press, pp. 319-340.)

Substance Abuse and AD/HD

- Barkley- 10% to 20% of Milwaukee follow-up had SUD.
- Overlap with CD.
- When he sees AD/HD clients in clinic 25% to 35% are actively abusing.
- AD/HD adults tend to be heavy smokers.

(Barkley, R.A. (1996). ADHD in Children, Adolescents, and Adults: Diagnosis, Assessment, and Treatment. Cape Cod Symposia, August, Pittsfield, MA.)

Barkley said the Drugs of Choice of AD/HD Adults to Abuse are in Order of Preference:

- Alcohol
- Marijuana
- Cocaine

(Barkley, R.A. (1996). ADHD in Children, Adolescents, and Adults: Diagnosis, Assessment, and Treatment. New England Educational Institute, Cape Cod Symposia, August, Pittsfield, MA.

Smoking and AD/HD

Smoking may be self-medicating and appears to be significantly related to AD/HD.

(Zametkin, A. (August, 2002) ADHD: Smoking and Stimulants. ADHD Report, 10(4), pp. 4-8.)

Other Types of Comorbidities Often Not Thought of or Known.



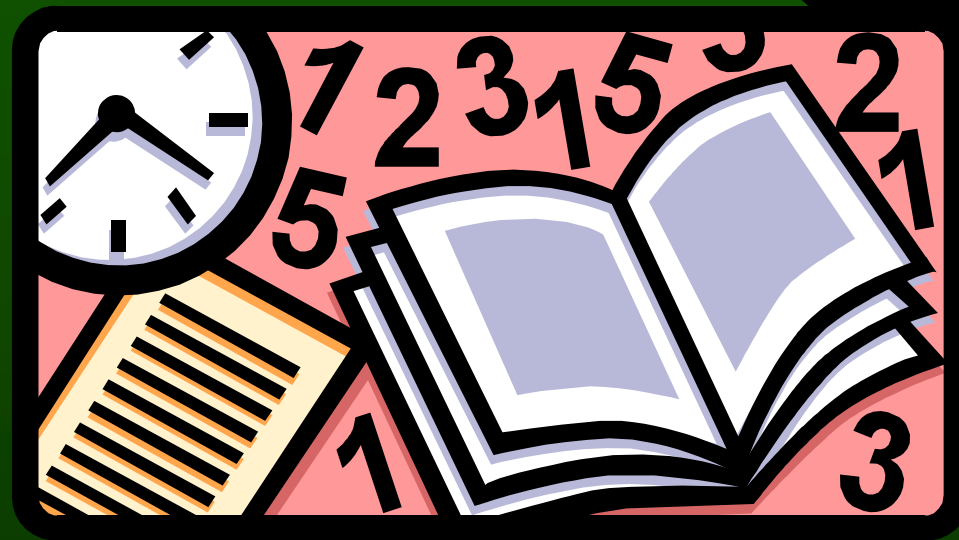
AD/HD and Learning Disorders

- Barkley stated 35% to 50% of adults with AD/HD have Learning Disorders.
- Hynd reported that 60% of those with Inattentive AD/HD have Learning Disorders.
- AD/HD is not a Learning Disorder. It is an “Attention-Deficit and Disruptive Behavior Disorder” (DSM-IV, TR, p. 85).

(Barkley, R.A. (1996). ADHD in Children, Adolescents, and Adults: Diagnosis, Assessment, and Treatment. Cape Cod Symposia, August, Pittsfield, MA.

(Hynd, G. (2002). ADHD and Its Association with Dyslexia: Diagnostic and Treatment Challenges. Paper presented at the 53rd Annual International Dyslexia Association Conference, Atlanta, GE, November 16.)

AD/HD and Learning Disorders



Barkley stated:

- 15% to 30% have Reading Disorder
- 26% have Spelling Problems
- 10% to 60% have Mathematics Disorder
- Developmental Coordination Disorder-Dysgraphia 60%

(Barkley, R.A. (2002). ADHD and Oppositional Defiant Children. Seminar Presented February 19-20, Phoenix, AZ, The Institute for Continuing Education, Fairhope, AL, from handout, pp. 9)

(Barkley, R.A. (2002) Mental and Medical Outcomes of AD/HD. Pre-Conference Institute, # TPA1, Thursday October 17, 2002, 14th Annual CHADD International Conference, Miami Beach, FL.)

AD/HD and Learning Disorders

Hynd indicated of those with Inattentive AD/HD:

- 21% have Reading Disorder
- 33% have Mathematics Disorder
- 4% have Spelling/Disorder of Written Expression

(Hynd, G. (2002). ADHD and Its Association with Dyslexia: Diagnostic and Treatment Challenges. Paper presented at the 53rd Annual International Dyslexia Association Conference, Atlanta, GE, November 16.)

AD/HD and Developmental Coordination Disorder

- Barkley stated 50%+ of those with ADHD meet criteria for DCD.
- They have Poor Physical Fitness
- They are Accident Prone (Especially those with ODD)

(Barkley, R.A. (2002). ADHD and Oppositional Defiant Children. Seminar Presented February 19-20, Phoenix, AZ, The Institute for Continuing Education, Fairhope, AL, from handout, pp. 9)

European Perspectives of AD/HD

Disorder of Attention Motor Control and Perception (DAMP):

Swedish researchers have been doing longitudinal research since 1977 with a group of children with AD/HD and Developmental Coordination Disorder which they view as one disorder called DAMP. At age 22, 30% of the children still met criteria for AD/HD and DCD.

(Gillberg, C. (2001). ADHD with Comorbid Developmental Coordination Disorder: Long-Term Outcome in a Community Sample, ADHD Report, 9 (2), pp. 5-9)

(Gillberg, C., and Kadesjo, B. (2000). Attention-Deficit/Hyperactivity Disorder and Developmental Coordination Disorder. In T.E. Brown (Ed.), Attention-Deficit Disorders and Comorbidities in Children, Adolescents and Adults. Washington, DC: American Psychiatric Press, pp. 393-406.)

AD/HD and Learning Disorders

Surprise! There are more people with Learning Disorders than AD/HD!

- Barkley estimated 4.7% of adult population has AD/HD (all types)
- Lyon and the NICHD have found that 15% to 20% of the general population meets criteria for Reading Disorder-Dyslexia Alone!

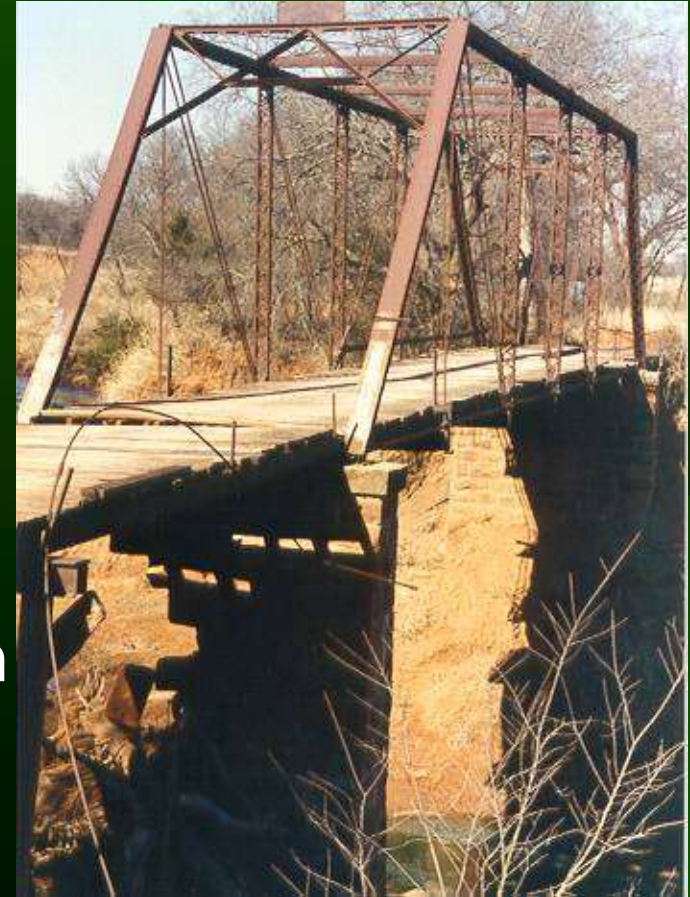
(Barkley, R.A. (2002). ADHD and Oppositional Defiant Children. Seminar Presented February 19-20, Phoenix, AZ, The Institute for Continuing Education, Fairhope, AL, from handout, pp. 8.)

(Lyon, G.R. (1996). The State of Research. In S.C. Cramer, and W. Ellis (Eds.), Learning Disabilities: Lifelong Issues, Baltimore, MD: Paul Brookes, pp. 3-64.)

Reading Disorder-Dyslexia is Not the Only Type of Reading Disorder!

The Symptoms of Dyslexia are:

1. Weak Phonemic Awareness
2. Slow Rapid Automated Naming
3. Poor Orthographic Processing
4. Exceptionally Poor Automatization
5. Poor Coordination



(Fawcett, A.J. (2001). Dyslexia: Theory & Good Practice. Philadelphia, PA: Whurr.)

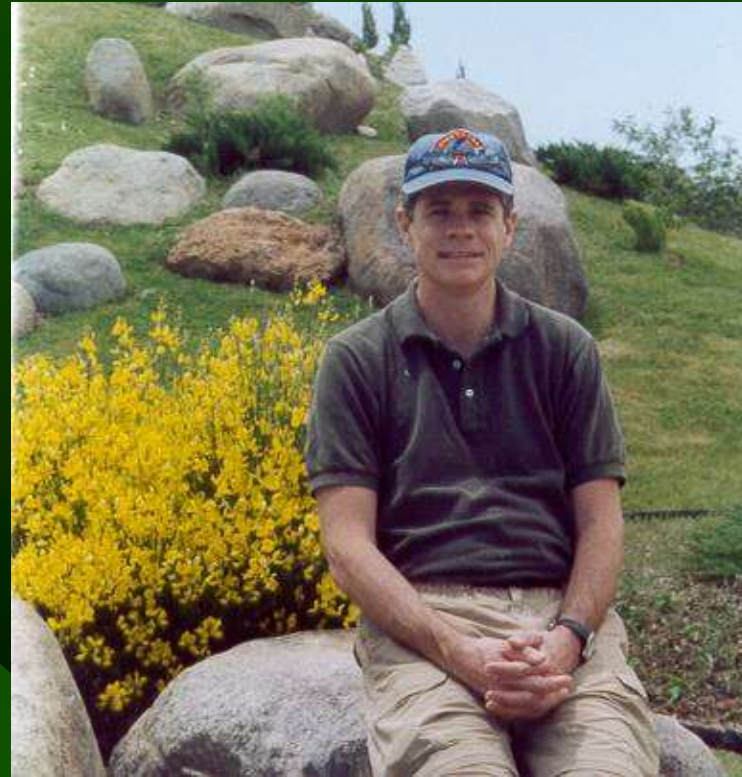
Other Reading Disorders Often Found in those with AD/HD-Symptoms

- Reading Disorder-Recall/Comprehension-Working Memory Problem Causes Comprehension Problem
- Acquired Dyslexia-Accident Proneness of the AD/HD
- Hyperlexia

(Blake, K.T. (May/June, 2000). Two Common Reading Problems Experienced by Many AD/HD Adults. Attention!, 6 (5), pp. 30-33.)

Blake, K.T. (April 10, 2001). Dyslexia In Adults: Its Not Just For Little Kids Anymore! Paper presented at Arizona Western College, Disability Awareness Week, Yuma, AZ.)

Cleansing Breath!



Kevin T. Blake, Ph.D., P.L.C.

1/7/2016
274

AD/HD and Speech and Language Disorders

- 10% to 54% have Expressive Language Disorders (60% of them have Pragmatic Deficits)

(Barkley, R.A. (2002). ADHD and Oppositional Defiant Children. Seminar Presented February 19-20, Phoenix, AZ, The Institute for Continuing Education, Fairhope, AL, from handout, pp. 9)

AD/HD and Speech and Language Disorders

Barkley stated AD/HD individuals have problems with Demand Speech.

(Barkley, R.A. (1998). Attention Deficit Hyperactivity Disorder, Second Edition. New York, NY: Guilford.)

AD/HD and Central Auditory Processing Disorder

- Tannock and Brown reported 45% to 75% comorbidity between AD/HD and CAPD.
- Hynd reported 50% of those with CAPD have AD/HD and 87% of those have comorbid Learning Disorders.

(Tannock, M, and Brown, T.E. (2000). Attention-Disorders With Learning Disorders in Children and Adolescents. In T.E. Brown (Ed.), Attention-Deficit Disorders and Comorbidities In Children, Adolescents, and Adults. Washington, DC: American Psychiatric Press, pp. 231-296.)

(Hynd, G. (2002). ADHD and Its Association with Dyslexia: Diagnostic and Treatment Challenges. Paper presented at the 53rd Annual International Dyslexia Association Conference, Atlanta, GE, November 16.)

AD/HD and Central Auditory Processing Disorder

- What appears to be comorbid CAPD in those with AD/HD may be a problem with inhibition and subsequent distraction leading to uncertainty of what was heard.
- There may only be a symptom overlap with CAPD.

((February, 2003). Performance of ADHD Children on Auditory Tasks Related to Behavioral Inhibition, Not CAPD. ADHD Report, 11, p. 11/ Summary of: Brier, J.I., et. al. (2002). Dissociation of Sensitivity and Response Bias in Children with Attention Deficit/Hyperactivity Disorder During Central Auditory Masking. Neurology, 16, pp. 28-34.)

AD/HD and Sleep Disorders

- Hart reported 80% of those with AD/HD have some problems with sleep.
- Duane indicated there is a higher rate of Sleep Disorders in those with AD/HD than the general population.

(Hart, C.E. (December, 2001). Don't Loose Sleep Over It! AD/HD and Sleep Problems. Attention!, 8 (3), pp .24-27.)

(Duane, D. (1993). Alertness: Vigilance and Wakefulness in Developmental Disorders of Reading and Attention. Annals of the New York Academy of Sciences, 62, p. 333-334.)

AD/HD and Sleep Disorders

“Importantly, it appears that much of these behavioral problems surrounding children’s bedtime are more a function of the disorders often comorbid with ADHD (ODD, anxiety disorders) than to ADHD” (p. 124).

(Barkley, R.A. (1998). Attention Deficit Hyperactivity Disorder, Second Edition. New York, NY: Guilford, p. 124.)

AD/HD and Sleep Disorder

“Despite this well-documented risk for sleep problems in children with ADHD, studies using polysomnograms of overnight sleep have not documented any difficulties in the nature of sleeping itself associated with this disorder” (p. 124).

(Barkley, R.A. (1998). Attention Deficit Hyperactivity Disorder, Second Edition. New York, NY: Guilford, p. 124.)

AD/HD and Sleep Disorders

- Asthma can cause sleep problems which can result in problems in attention in those without AD/HD.
- Sleep deprivation can cause AD/HD-like symptoms.

(Finn, R. (March, 2003). Asthma Associated with Sleep , Attention Problems in Children. Clinical Psychiatry News, p. 53.)

(Finn, R. (March, 2003). Sleep Deprivation in Normal Kids Leads to ADHD Symptoms. Clinical Psychiatry News, p. 53.)

Sleep Disorders and AD/HD

“As the researchers expected, participants performed more poorly on the math task when they were sleep deprived than when they were rested. And consistent with the notion that sleep deprivation impairs working-memory functioning in the prefrontal cortex while participants were performing the math task after sleep deprivation than after a normal night’s sleep” (p. 56).

(Caprener, S. (October, 2001). How Does the Brain Catch Up? Monitor On Psychology, 32 (9), p. 46.)

AD/HD and Sleep Disorders

“Many researchers have noted that sleep-deprived teenagers appear to be especially vulnerable to psychopathologies such as depression and ADHD, and to have difficulty controlling their emotions and impulses” (p. 44-45).

(Carpenter, Carpenter, S. (October, 2001). Sleep Deprivation May be Undermining Teen Health. Monitor On Psychology, 32 (9), pp. 42-45.)

AD/HD & Thyroid Disorder

Resistance to Thyroid Hormone (RTH):

- Usually autosomal dominant trait caused by one gene
- Rare disorder; usually show LD and cognitive difficulties
- AD/HD in RTH patients usually subclinical
- Liothyronine may be helpful with such patients

(Barkley, R.A. (1998). Attention Deficit Hyperactivity Disorder, Second Edition. New York, NY: Guilford, p. 173.)

Fibromyalgia, Chronic Fatigue, and AD/HD

“...it is becoming increasingly clear that these disorders are related and that effective treatment of either requires aggressive treatment of both. We believe that a cornerstone for the prevention and treatment of FMS/CFS is the recognition of underlying AD/HD...” (p. 335).

(Lithman, J., and Rodin, G. (2002). Fibromyalgia/Chronic Fatigue in Women with AD/HD. In P. O. Quinn, and K.G. Nadeau (Eds.), Gender Issues and AD/HD: Research, Diagnosis and Treatment. Silver Spring, MD: Advantage, pp. 302-352.)

Eating Disorders and AD/HD

30% of overweight adults have significant AD/HD symptoms.

May also be the same for binge eating disorder and bulimia

(Fleming, J., and Levy, L. (2002). Eating Disorders in Women with AD/HD. In P.O. Quinn, and K.G. Nadeau (Eds.), Gender Issues and AD/HD: Research, Diagnosis and Treatment. Silver Spring, MD: Advantage, pp. 411-426.)

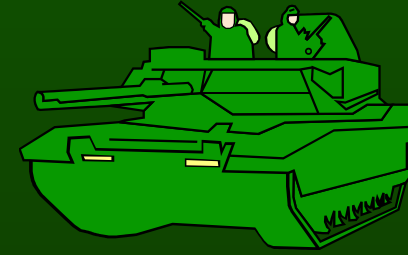
Driving and AD/HD



- AD/HD persons don't handle a car as well as non-AD/HD: they are not as coordinated.
- Poor reaction times and highly variable
- They speed up when they should break
- 2-3x more speeding tickets; 3x worse accidents

(Barkley, R.A. (2002) Mental and Medical Outcomes of AD/HD. Pre-Conference Institute, # TPA1, Thursday October 17, 2002, 14th Annual CHADD International Conference, Miami Beach, FL.)

Road Rage and AD/HD



- AD/HD and ODD in adulthood may put a person at risk for problems with road rage.

(Barkley, R.A. (2002) Mental and Medical Outcomes of AD/HD. Pre-Conference Institute, # TPA1, Thursday October 17, 2002, 14th Annual CHADD International Conference, Miami Beach, FL.)

AD/HD and Sexual Activity

- Have sexual intercourse earlier
- Change partners more often
- Less contraception
- 40% teen pregnancy rate (males and females)
- More STDs.

(Barkley, R.A. (2002) Mental and Medical Outcomes of AD/HD. Pre-Conference Institute, # TPA1, Thursday October 17, 2002, 14th Annual CHADD International Conference, Miami Beach, FL..)

How to Diagnose AD/HD



Barkley stated:

Those who diagnose AD/HD should have training in the differential diagnosis of Mental Disorders and in AD/HD using either the DSM-IV, TR and/or ICD9/10 format(s).

(Barkley, R.A. (1998). ADHD in children, Adolescents, and Adults: Diagnosis, Assessment and Treatment. New England Educational Institute, Cape Cod Symposium, August, Pittsfield, MA.)

THE THREE MOST IMPORTANT THINGS IN DIAGNOSING AD/HD:

- ***HISTORY***
- ***HISTORY***
- ***HISTORY***



(Barkley, R.A. (1998). AD/HD in Children, Adolescents, and Adults: Diagnosis, Assessment and Treatment. New England Educational Institute, Cape Cod Symposium, August, Pittsfield, MA.)

Get Extensive Information From Collaterals

- Parents
- Significant Others/Spouses
- Employers
- Teachers/Professors
- Friends



*(Barkley, R.A. (1998). AD/HD in Children, Adolescents, and Adults: Diagnosis, Assessment and Treatment.
New England Educational Institute, Cape Cod Symposium, August, Pittsfield, MA.)*

Diagnosing AD/HD

- Have them complete information relating to client's past and present history and behavior using:
- Checklists
- Questionnaires
- Semi-structured Interview

*(Barkley, R.A. (1998). AD/HD in Children, Adolescents, and Adults: Diagnosis, Assessment and Treatment.
New England Educational Institute, Cape Cod Symposium, August, Pittsfield, MA.)*

Diagnosing AD/HD

- Review Teacher's Comments on Past Report Cards
- Review Past Reports of Evaluations
- Contact Past Mental and Medical Health Professionals Who Worked with Client

(Barkley, R.A. (1998). AD/HD in Children, Adolescents, and Adults: Diagnosis, Assessment and Treatment. New England Educational Institute, Cape Cod Symposium, August, Pittsfield, MA.)

Diagnosing AD/HD

- Client Completes Questionnaires, and Checklists about past and present history and behavior
- Client Completes Inventory(s) to Screen Mental Health Status (i.e., SCL-90R, MMPI-2, etc.)

(Barkley, R.A. (1998). AD/HD in Children, Adolescents, and Adults: Diagnosis, Assessment and Treatment. New England Educational Institute, Cape Cod Symposium, August, Pittsfield, MA.)

Diagnosing AD/HD



- Client and at least One Collateral Participates in a Semi-structured Interview with Mental Health Professional

(Barkley, R.A. (1998). AD/HD in Children, Adolescents, and Adults: Diagnosis, Assessment and Treatment. New England Educational Institute, Cape Cod Symposium, August, Pittsfield, MA.)

Why Use a Collateral in AD/HD Evaluations?



Follow-up studies of AD/HD children as adults:

- Interview Patient-5% still AD/HD
- Interview Parents-66.7% still AD/HD (Age adj. DSM)
- When both are compared to driving records, criminal records, insurance records, transcripts, interviews about social life, and employer interviews parents' reports correlate; patient's do NOT!

(Barkley, R.A. (2002) Mental and Medical Outcomes of AD/HD. Pre-Conference Institute, # TPA1, Thursday October 17, 2002, 14th Annual CHADD International Conference, Miami Beach, FL.)

Does this mean 30% outgrow their AD/HD?

- No, a large group were at the 90%ile in terms of impairment-***Shadow Syndrome***
- Barkley estimated about 15% “outgrow” AD/HD

(Barkley, R.A. (2002) Mental and Medical Outcomes of AD/HD. Pre-Conference Institute, # TPA1, Thursday October 17, 2002, 14th Annual CHADD International Conference, Miami Beach, FL.)

Diagnosing AD/HD

- “The last person you interview is the person with the disorder, because they are not aware of their disorder”.
- The DSM-IV, TR was designed for diagnosing children. “It loses sensitivity with age”.

(Barkley, R.A. (2002) Mental and Medical Outcomes of AD/HD. Pre-Conference Institute, # TPA1, Thursday October 17, 2002, 14th Annual CHADD International Conference, Miami Beach, FL.)

Diagnosing AD/HD

- With women use checklists/questionnaire with female norms
- Be aware that females are often overlooked and not diagnosed.
- Women get diagnosed with Depression and/or Anxiety and the underlying AD/HD is missed.
- Women may manifest AD/HD differently than men.

(Nadeau, K. and Quinn, P. (2002). The History of AD/HD-An Unexamined Gender Bias. In P.O. Quinn and K.G. Nadeau (Eds.), Gender Issues and AD/HD: Research, Diagnosis and Treatment. Silver Spring, MD:Advantage, pp. 2-22.)

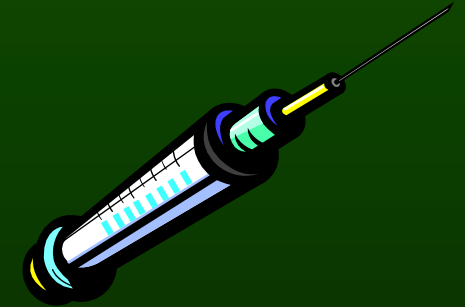
Diagnosing AD/HD

Conners, et.al. suggested administering the Paulhus Deception Scales to control against socially desirable responding by client to questionnaires, checklists, and semi-structured interview items.

(Conners, C.K., et. al. (1999). Conners' Adult ADHD Rating Scales (Technical Manual). North Tonawonda, NY: Multi-Health Systems)

Diagnosing AD/HD

**DO NOT DIAGNOSE WITH STIMULANT
RESPONSE!**



“...stimulants improve attention and improve impulse control regardless of diagnosis or normality, and fail to help a few patients who really have ADHD” (p.40).

(Arnold, L.E. (2002). Contemporary Diagnosis and Management of Attention-Deficit/Hyperactivity Disorder, Second Edition. Newtown, PA: Handbooks in Health Care.)

Diagnosing AD/HD

- Wilens, Spencer and Biederman wrote, “Because alcohol and drug-use disorders are frequently encountered in adults with ADHD, a careful history of substance abuse should be completed” (p. 170).
- Barkley suggested a drug screening urine test if medications are to be used.

(Wilens, T.E., Spencer, T.J., and Biederman, J. (1995). Pharmacotherapy of Attention-Deficit/Hyperactivity Disorder. In K. Nadeau (Ed.), A Comprehensive Guide to Attention Deficit Disorder in Adults. New York, NY: Bruner/Mazel, pp. 168-188.)

(Barkley, R.A. (1998). AD/HD in Children, Adolescents, and Adults: Diagnosis, Assessment and Treatment. New England Educational Institute, Cape Cod Symposium, August, Pittsfield, MA.)

Diagnosing AD/HD

Continuous Performance Tests

- *Conners' CPT II*
- *Test of Variables of Attention (TOVA) – Visual Auditory*
- *Gordon Diagnostic System (GDS)*
- *Integrated Visual and Auditory Continuous Performance Test (IVA)*

CPTS (Continued)

Conners and Jett suggested using a CPT as an observational tool for adults being assessed for AD/HD.

(Conners, C.K., and Jett, J.J. (1999). Attention Deficit Hyperactivity Disorder (In Adults and Children): The Latest Assessment and Treatment Strategies. Kansas City, MO: Compact Clinicals.)

CPTS (Continued)

TOVA measures Visual and Auditory
Information Processing

It is used to assess inattention: not just AD/HD

(Corman, C. (March 24, 2001). Introduction to the TOVA & Advanced TOVA Workshops. The ADD Clinic, Scottsdale, AZ.

CPTS (Continued)

The TOVA:

- Screen for ADHD
- Diagnostic tool
- * Predict medication response
- Help in titrating medication
- Monitor treatment over time
- It does not diagnose AD/HD



(Corman, C. (March 24, 2001). Introduction to the TOVA & Advanced TOVA Workshops. The ADD Clinic, Scottsdale, AZ.

Clinic,

Nadeau and Quinn said of CPTs:

“Although these high-tech, closely measured, easily compared response patterns hold intuitive appeal, there is no clear evidence that they can be considered accurate diagnostic tools for ADHD” (p. 110).

(Nadeau, K.G., and Quinn, P.O. (2002). Women’s AD/HD Self-Assessment Symptom Inventory (SASI). In P.O. Quinn and K.G. Nadeau (Eds.), Gender Issues and AD/HD: Research, Diagnosis and Treatment. Silver Springs, MD: Advantage.)

Nadeau and Quinn (Continued)

“Clinical experience suggests that many adults with clinically significant symptoms of AD/HD are, nevertheless, able to produce nearly flawless performances on these electronic measures of inattention” (p. 110).

(Nadeau, K.G., and Quinn, P.O. (2002). Women’s AD/HD Self-Assessment Symptom Inventory (SASI). In P.O. Quinn and K.G. Nadeua (Eds.), Gender Issues and AD/HD: Research, Diagnosis and Treatment. Silver Springs, MD: Advantage.)

CPTs Continued

Barkley stated:

- Do not use CPTs to assess drug response; they are less sensitive than rating scales.
- Abnormal score 90% indicates a disorder, but 30% may have a disorder other than AD/HD
- High rate of False Negatives

(Barkley, R.A. (1998). ADHD in children, Adolescents, and Adults: Diagnosis, Assessment and Treatment. New England Educational Institute, Cape Cod Symposium, August, Pittsfield, MA.)

CPTS (Continued)

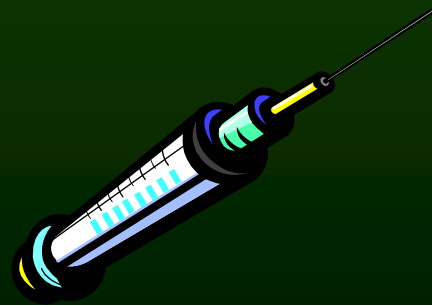
“Discriminant analysis of T.O.V.A. Performances of children with ADHD and matched controls correctly identified 87% of normal and 90% of ADHD subjects with 13% false negatives” (p. 2).

(T.O.V.A. and T.O.V.A.-A. Promotional materials available from Universal Attention Disorders, Inc., Los Almitos, CA.)

CPTS (Continued)

The following may cause false positive scores:

- Tobacco
- Caffeine
- Cocaine
- Marijuana

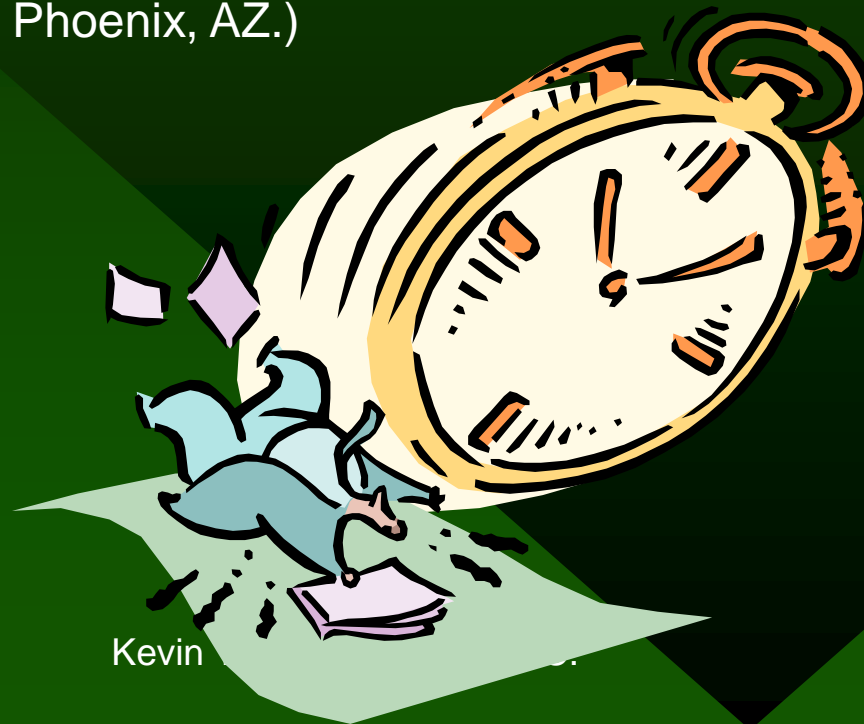


(Greenberg, L. (1996). Introductory T.O.V.A. Workshop. T.O.V.A. Research Foundation, Universal Attention Disorders of Los Alamitos, CA, workshop in Phoenix, AZ.)

CPTS (Continued)

- Don't administer after 1:00 PM local time
- Compare commission scores to FSIQ

(Greenberg, L. (1996). Introductory T.O.V.A. Workshop. T.O.V.A. Research Foundation, Universal Attention Disorders of Los Alamitos, CA, workshop in Phoenix, AZ.)



Kevin

CPTS (Continued)

Mayes and Calhoun suggested interpreting CPT scores relative to I.Q. and using empirically derived cutoffs may enhance diagnostic value of CPTs.

(Mayes, S.D., and Calhoun, S.L. (December, 1999). Discriminative Validity of the Gordon Diagnostic System (GDS). ADHD Report, 7 (6), pp. 11, 14-15.)

CPTS (Continued)

Newcorn, et. al. reported that girls make far fewer impulse errors on CPTs than boys.

(Newcorn, J.H., et. al. ((2001). Symptom Profiles in Children with ADHD: Effects of Comorbidity and Gender. Journal of the American Academy of Child and Adolescent Psychiatry, 40, 137-146.)

CPTS (Continued)

Murphy and Gordon use CTPs in their evaluations, “simply because these tests provide the opportunity to observe the patient cope with a task that requires sustained attention and impulse control” (p. 359).

(Murphy, K.R., and Gordon, M. (1998). Assessment of Adults with ADHD. In R.A. Barkley (Ed.), Attention-Deficit Hyperactivity Disorder, Second Edition. New York, NY: Guilford, pp. 345-369.)

PLEASE ENJOY LUNCH!



PLEASE ENJOY LUNCH!



We will be starting over in an hour and a half.

Please return on time. We have a lot of material to cover... Thank you!

Welcome Back From Lunch



- Do You Have Questions?
- We Have 10 minutes for questions.
- Then we must get cracking!

I.Q. and Setting

- “Thus 2% of the ADHD population demonstrate sub-borderline intellectual skills, and 2% demonstrate gifted intelligence” (Goldstein, 1997, p. 44).
- Ackerman, et. al. wrote, “115 used to be considered the lower limit for probability of success in college” (p. 76).

(Goldstein, S. (1997). Managing Attention and Learning Disorders in Late Adolescence and Adulthood: A Guide for Practitioners. New York, NY: John Wiley and Sons.)

(Ackerman, P.T., McGrew, M.J., and Dykman, R.A. (1987). A Profile of Male and Female Applicants for a Special College Program for Learning-Disabled Students. Journal of Clinical Psychology, 43, pp. 67-78.)

Neuropsych Batteries and AD/HD Diagnosis

In our review of the literature, we can establish no basis for suggesting routine administration of neuropsychological batteries within an ADHD evaluation...As for identification purposes, no single subtest or combination of subtests within the LNNB or the H-R demonstrated predictive value” (p. 299-300).

(Barkley, R.A. (1998). Attention-Deficit Hyperactivity Disorder, Second Edition. New York, NY: Guilford.)

Psychological Tests and AD/HD Diagnosis

“Under no conditions should psychological testing be offered as a sole basis for the diagnosis of ADHD” (p. 358).

(Murphy, K.R., and Gordon, M. (1998). Assessment of Adults with ADHD. In R.A. Barkley (Ed.), Attention-Deficit Hyperactivity Disorder, Second Edition. New York, NY: Guilford, pp. 345-369.)

Psychological Tests and AD/HD Diagnosis

“Significant splits between Verbal and Performance subscales on the WAIS-R are often offered as evidence of ADHD. No evidence exists that such discrepancies are at all meaningful for this diagnosis. The same conclusion holds for specific patterns of subtest scores or for disparities between IQ test scores and indices of achievement” (p. 358).

(Murphy, K.R., and Gordon, M. (1998). Assessment of Adults with ADHD. In R.A. Barkley (Ed.), Attention-Deficit Hyperactivity Disorder, Second Edition. New York, NY: Guilford, pp. 345-369.)

Psychological Tests and AD/HD Diagnosis

Significant results from psychological tests are solely used “...to confirm other clinical data supportive of the ADHD diagnosis” (p. 359).

(Murphy, K.R., and Gordon, M. (1998). Assessment of Adults with ADHD. In R.A. Barkley (Ed.), Attention-Deficit Hyperactivity Disorder, Second Edition. New York, NY: Guilford, pp. 345-369.)

For Diagnosing Inattentive AD/HD Brown Recommends:

- Bannatyne Indexes of the WAIS-III
- Logical Memory Subtest of the WMS-III

(Brown, T.E. (1996). Brown Attention Deficit Disorder Scales (Manual). San Antonio, TX.)



Documentation Guidelines for AD/HD.

***“American Academy of Pediatrics releases
Clinical Practice guidelines for the
Diagnosis and Evaluation of Children with
ADHD”***

(Anonymous (October, 2000). News Alert. ADHD Report, 8 (5), p. 16.)

(Pediatrics, 105 (5), May 2000.)

Documentation Guidelines for AD/HD

Guidelines for Documentation of Attention-Deficit/Hyperactivity Disorder in Adolescents and Adults, Consortium on ADHD Documentation, 1998.

(Gordon, M., and Keiser, S. (EDS.), (1998). Accommodations in Higher Education Under the Americans with Disabilities Act (ADA): A No-Nonsense Guide for Clinicians, Educators, Administrators and Lawyers. New York, NY: Guilford, pp. 222-230.)

Documentation Guidelines for AD/HD

ADDA Guidelines for the Diagnosis and Treatment of Attention Deficit Disorder

National Attention Deficit Disorder Association

1788 Second Street, Suite 200

Highland Park, IL 60035

(847) 432-2332

Website: www.add.org

Documentation Guidelines for AD/HD

Policy Statement for Documentation of Attention-Deficit/Hyperactivity Disorder in Adolescents and Adults

((1998). Educational Testing Service, Office of Disability Policy, Princeton, NJ 08541.)

The Americans with Disabilities Act of 1990

- Civil rights law which is **NOT** an all inclusive one like IDEA (IDEA does not apply to adults)
- **Must have impairment in a major life activity**
- **Disorder does not equal disability**
- **Must be impaired compared to the average American**

(Gordon, M., and Keiser, S. (EDS.), (1998). Accommodations in Higher Education Under the Americans with Disabilities Act (ADA): A No-Nonsense Guide for Clinicians, Educators, Administrators and Lawyers. New York, NY: Guilford, pp. 222-230.)

Documentation

***Latham, P.S., and Latham, P.H. (1996).
Documentation and the Law: For
Professionals Concerned with ADD/LD and
Those They Serve. Washington, DC: JKL
Communications.***

Neurological Tests and AD/HD

- Brain Imagery and pupilometry, etc. may help in DX but must not be used alone.
- Genetic Testing May be coming soon for AD/HD
- Boston Life Sciences, Inc.

(Barkley,R.A. (2002A Tape-2).ADHD Symposium: Comorbid Disorders Etiologies and Outcomes. University of Massachusetts, January, Distributed by StoneBridge Seminars, Westborough, MA.)

)Boston Life Sciences, Inc. (September 30, 2000). Corporate Overview. Boston Life Sciences, Inc., 137 Newbury Street, 8th Floor, Boston, MA 02116)

Treatment of AD/HD

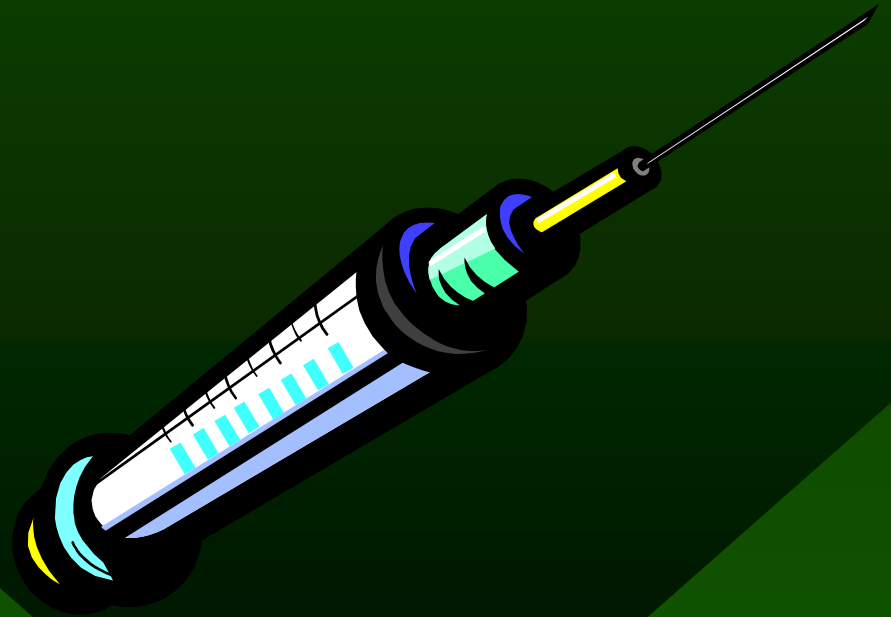
1. Diagnosis
2. Psychoeducation about AD/HD
3. Medication
4. Accommodation

(Barkley, R. A. (1998). ADHD in Children, Adolescents, and Adults: Diagnosis, Assessment, and Treatment. New England Educational Institute, Cape Cod Symposia, August, Pittsfield, MA.)

Medication and AD/HD

Barkley stated this is the first treatment attempted with adults. Research indicates this is the best Tx in those who respond.

(Barkley, R. A. (1998). ADHD in Children, Adolescents, and Adults: Diagnosis, Assessment, and Treatment. New England Educational Institute, Cape Cod Symposia, August, Pittsfield, MA.)



Medication and AD/HD

Over 160 double blind research studies have been conducted that have demonstrated the **EFFICACY** of stimulant medication with AD/HD individuals.

(Spencer, T. (1998). The Hottest Questions Answered by Today's Leading Experts. Attention!, 4 (3), 10-11.)

Medication and AD/HD

“Medication is at least 80% effective or more” ...in adults.

(Barkley, R.A. (2002) Mental and Medical Outcomes of AD/HD. Pre-Conference Institute, # TPA1, Thursday October 17, 2002, 14th Annual CHADD International Conference, Miami Beach, FL.)

THE MTA STUDY

Multimodal Treatment of ADHD

NIH Research Study

- 579 AD/HD children
- 14 month clinical trial

(MTA Cooperative Group. Achieves of General Psychiatry. 1999; 56:1073-1086.)

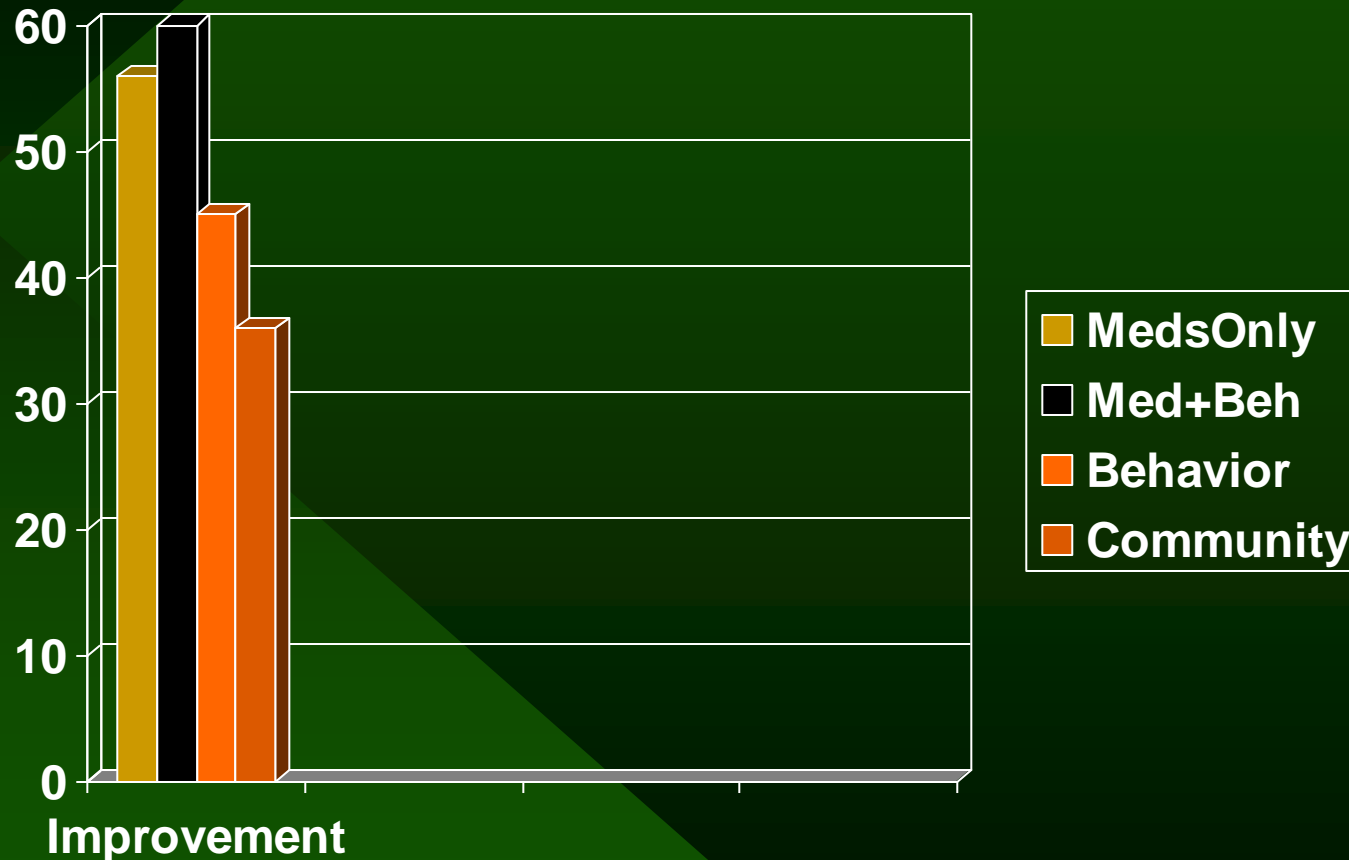
The MTA Study

Four Treatment Conditions:

1. Medication Management
2. Behavior Management
3. Medication and Behavior Management
4. Community Based Treatment

(MTA Cooperative Group. *Achieves of General Psychiatry*. 1999; 56:1073-1086.)

MTA OUTCOMES



(MTA Cooperative Group. *Achieves of General Psychiatry*. 1999; 56:1073-1086.)

Medication and Inattentive AD/HD

- Only about 20% of those with Inattentive AD/HD respond to Stimulant Medication
- Those with Sluggish Cognitive Tempo probably do not respond.

(Barkley, R.A. (2002) Mental and Medical Outcomes of AD/HD. Pre-Conference Institute, # TPA1, Thursday October 17, 2002, 14th Annual CHADD International Conference, Miami Beach, FL.)

Medication and Acquired AD/HD

- About 50% of those with Acquired AD/HD respond to Stimulant Medication.

(Barkley, R.A. (2002) Mental and Medical Outcomes of AD/HD. Pre-Conference Institute, # TPA1, Thursday October 17, 2002, 14th Annual CHADD International Conference, Miami Beach, FL.)

General Guidelines for Deciding About AD/HD Medication

- Lifelong history of disabling impulsiveness and inattention
- Nothing else has helped
- Lost jobs, marriages, academic and social problems due to AD/HD symptoms
- Such poor executive functions cause constant state of panic

(Gordon, M., et. al. (1996). The Down and Dirty Guide to Adult ADD. DeWitt, NY: GSI.)

Stimulant Medication and AD/HD

“The stimulant medications are effective and safe treatments for the symptomatic management of individuals with ADHD. Indeed, CNS stimulants are the best-studied treatment applied to this disorder and are among the safest and most effective symptomatic treatments in medicine” (pp. 542-543).

(DuPaul, G., Barkley, R.A., and Connor, D.F. (1998). Stimulants. In R.A. Barkley (Ed.), Attention Deficit Hyperactivity Disorder, Second Edition. New York, NY: Guilford, pp. 510-551.)

Stimulants and AD/HD

- Ritalin (methylphenidate)
- Dexedrine (d- amphetamine)
- Adderall (d-, amphetamines)
- Cylert (pemoline-discontinued in children, liver failure, 14 cases. Possibly good with Substance Abuse Disorder)
- * Trying all stimulants- 90%+ response rate

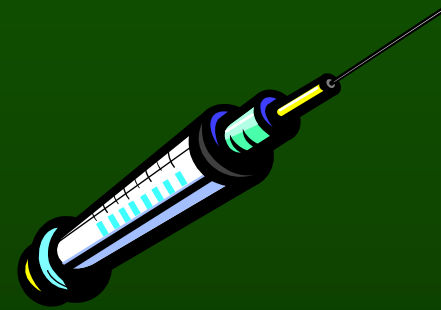
(Barkley, R.A. (2002). ADHD and Oppositional Defiant Children. Seminar presented, February 19-20, The Institute for Continuing Education, Fairhope, AL, in Phoenix, AZ, p. 23.)

Other Stimulant Sometimes Used with AD/HD:

“Methamphetamine (Desoxyn) has also been used in a small percentage of cases of ADHD. But in view of its greater abuse potential than other stimulants, the dearth of controlled research, and limited availability in some geographic regions...(p. 511), it will not be discussed.

(DuPaul, G., Barkley, R.A., and Connor, D.F. (1998). Stimulants. In R.A. Barkley (Ed.), Attention Deficit Hyperactivity Disorder, Second Edition. New York, NY: Guilford, pp. 510-551.)

Ritalin vs. Cocaine



“We speculate that because the experience of the high is associated with the fast uptake of cocaine and methylphenidate in the brain, the slow clearance of methylphenidate from the brain may serve as a limiting factor in promoting its frequent self-administration” (p. 456).

(Volkow, N.D., et. al. (June, 1995). Is Methylphenidate Like Cocaine? Archives of General Psychiatry, 52 (6), pp. 456-463

Stimulants and AD/HD

“The rate of response is about the same in children and adults...” (p. 5).

(Anonymous (November, 2002). Attention Deficit Disorder in Adults. Harvard Mental Health Letter, 19 (5), pp. 3-6.)

Stimulants and AD/HD

“... women should be expected to respond to stimulants in a similar fashion as men. Clinicians may also extrapolate from the child AD/HD Literature on efficacy of Stimulants in females” (p. 147).

(Prince, J., and Wilens, T. (2002). Medications Used in the Treatment of AD/HD in Women. In P.O. Quinn, and K.G. Nadeau (Eds.), Gender Issues and AD/HD. Silver Spring, MD: Advantage, pp. 144-182.)

New Formulations of Stimulants

Focalin-Effective D isomer of Ritalin lasts 4-6 hours

Ritalin LA-Once a day Spheroidal Oral Drug Absorption System Ritalin that lasts 8-9 hours

Adderall XR-Extended Release Micotrol beaded system of 4 amphetamines that lasts 12 hours

Metadate CD- Methylphenidate extended release 2 bead system that last 8-9 hours

Concerta- OROS system Osmotic pump of methylphenidate that lasts 10-14 hours

(Prince, J., and Wilens, T. (2002). Medications Used in the Treatment of AD/HD in Women. In P.O. Quinn, and K.G. Nadeau (Eds.), Gender Issues and AD/HD. Silver Spring, MD: Advantage, pp. 144-182.)

(Ritalin LA Product Monograph.qxd, 6/24/02)

New Formulations of Stimulants

- Methypatch - Transdermal MPH, once daily, experimental
- ABT 418 Nicotinic receptor agonist, Transdermal patch, experimental

(Prince, J., and Wilens, T. (2002). Medications Used in the Treatment of AD/HD in Women. In P.O. Quinn, and K.G. Nadeau (Eds.), Gender Issues and AD/HD. Silver Spring, MD: Advantage, pp. 144-182.)

(Prince, J. (October 11-12, 2001). Pharmacotherapy of AD/HD with Non-Stimulants. Paper presented at the Across the Spectrum Conference: Autism, Aspergers Disorder and Attention Deficit Hyperactivity Disorder Research and Treatment, National Association fro Continuing Education, Mesa, AZ.

New Formulations of Stimulants

- Adderall XR2: therapeutic dosage lasts 16 hours
- Focalin XR: Due out in late 2005

Young, J. (May 13, 2005). Contemporary Approaches to AD/HD Diagnosis, Impact and Treatment. Paper presented at the National Attention Deficit Disorder Association Annual Conference, May 12-15, 2005, Tucson, AZ.

Side Effects of Stimulants

- *Insomnia*
- *Edginess*
- *Diminished appetite*
- *Weight Loss*
- *Dysphoria*
- *Obsessiveness*
- *Tics*
- *Headaches*



(Prince, J., and Wilens, T. (2002). Medications Used in the Treatment of AD/HD in Women. In P.O. Quinn, and K.G. Nadeau (Eds.), Gender Issues and AD/HD. Silver Spring, MD: Advantage, pp. 144-182.)

Stimulants and Substance Abuse

“There are no reported individual cases of addiction or serious drug dependence to date with these medications. Several studies...have sought to determine whether children treated with CNS stimulants are more likely to abuse illicit substances as teenagers...The results suggest that there is no increased risk for drug abuse associated with treatment...” (p. 525).

(DuPaul, G., Barkley, R.A., and Connor, D.F. (1998). Stimulants. In R.A. Barkley (Ed.), Attention Deficit Hyperactivity Disorder, Second Edition. New York, NY: Guilford, pp. 510-551.)

Stimulants and Substance Abuse

Harvard Study Risk of Substance Abuse

- **Unmedicated AD/HD Children** **30%**
- **Medicated AD/HD Children** **12%**
- **Non-AD/HD Controls** **10%**

(Prince, J. (November 1, 2000). Substance Abuse Disorder Gifted. Co-Existing Conditions Workshop, 12th Annual International Conference on Attention-Deficit/Hyperactivity Disorder, CHADD, Session #W%, Chicago, IL.)

Stimulants and Substance Abuse

- Cylert (Pemoline) has a low abuse potential, but may cause liver toxicity. Must check liver enzymes every two weeks.
- It now has a PDR Black Box Warning.

(Prince, J., and Wilens, T. (2002). Medications Used in the Treatment of AD/HD in Women. In P.O. Quinn, and K.G. Nadeau (Eds.), Gender Issues and AD/HD. Silver Spring, MD: Advantage, pp. 144-182.)

Hallowell, E.M., and Ratey, J.J. (2005). Delivered From Distraction. New York, NY: Ballantine, pp. 251.

Stimulant Medications and Substance Abuse

“Despite a lack of evidence of stimulant treatment leading to stimulant use disorders or other substance use disorders..., an increase of oral and intranasal abuse of methylphenidate, generally by youths without ADHD, has been reported in adolescents...” (p. 332).

(Wilens, T.E., Spencer, T.J., and Biederman, J. (2000). Attention-Deficit/Hyperactivity Disorder With Substance Use Disorders. In T.E. Brown (Ed.). Attention-Deficit Disorders and Comorbidities in Children, Adolescents and Adults. Washington, DC: American Psychiatric Press, pp.319-339.)

Stimulant Medications and Substance Abuse

- Family Education to Prevent Diversion, etc.
- 12 Step-Like Programs, etc.
- Frequent Medication Monitoring
- Use of Random Urine Toxicology Screens
- Use Different Medications

(Wilens, T.E., Spencer, T.J., and Biederman, J. (2000). Attention-Deficit/Hyperactivity Disorder With Substance Use Disorders. In T.E. Brown (Ed.). Attention-Deficit Disorders and Comorbidities in Children, Adolescents and Adults. Washington, DC: American Psychiatric Press, pp.319-339.)

Stimulant Medications and Substance Abuse

Possible Medication Options:

- Long Acting Stimulants
- Antidepressants
- Cylert

(Wilens, T.E., Spencer, T.J., and Biederman, J. (2000). Attention-Deficit/Hyperactivity Disorder With Substance Use Disorders. In T.E. Brown (Ed.). Attention-Deficit Disorders and Comorbidities in Children, Adolescents and Adults. Washington, DC: American Psychiatric Press, pp.319-339.)

Stimulant Medications and Substance Abuse

- Stimulants may reduce AD/HD and Substance Abuse Symptoms.
- Those with Active Substance Dependence need 1 to 2 months of stable sobriety before using stimulants-AD/HD meds.

Murphy, K.R. (1998). Psychological Counseling of Adults with ADHD. In R.A. Barkley (Ed.), Attention Deficit Hyperactivity Disorder, Second Edition. New York, NY: Guilford, pp. 582-591.)

Stimulant Medications and Substance Abuse

“If the symptoms can be controlled without a potentially addictive substance, then at least a trial without stimulants should be tried” (p. 22).

(Troncale, J.A. (2003). ADHD and Addiction Treatment: Assessing a Difficult Medication Decision. Addiction Professional, 1 (1), pp. 21-23.)

Stimulant Medications and Substance Abuse

“There is no doubt that some patients with ADHD plus addiction are able to use stimulants safely since their ADHD symptoms are improved with stimulants” (p. 23)

(Troncale, J.A. (2003). ADHD and Addiction Treatment: Assessing a Difficult Medication Decision. Addiction Professional, 1 (1), pp. 21-23.)

Stimulant Medications and Substance Abuse

“Taken together, the existing literature overwhelmingly does not indicate a strong likelihood that treatment of ADHD children with stimulants will predispose them toward a greater risk of teen or young adult drug use, dependence, or abuse” (p. 5).—The Lambert study does not control for CD.

(Barkley, R. A. (February, 2003). Does Stimulant Medication Therapy for ADHD in Children Predispose to Later Drug Abuse? ADHD Report, 11 (1), pp. 2-7.)

Stimulant Medications and Substance Abuse

- A Good Review Article on This Subject:
 - Wilens, T.E., Faraone, S.V., Biederman, J., and Gunawardene, S. (2003). Does Stimulant Therapy of Attention-Deficit/ Hyperactivity Disorder Beget Later Substance Abuse? A Meta-Analytic Review of the Literature. Pediatrics, 111, pp. 179-185.

Stimulant Medications and Substance Abuse

US Department of Justice, Drug Enforcement Administration, Office of Diversion Control (December 10-12, 1996). Conference Report: Stimulant Use in the Treatment of ADHD.

Some Reasons AD/HD Adults Do Not Respond To Stimulants:

“A meta-analysis of data on these lower response rates suggests lower responses are due to methodological limitations (i.e., varying diagnostic criteria and use of low doses)” (p. 156).

(Prince, J., and Wilens, T. (2002). Medications Used in the Treatment of AD/HD in Women. In P.O. Quinn, and K.G. Nadeau (Eds.), Gender Issues and AD/HD. Silver Spring, MD: Advantage, pp. 144-182.)

Antidepressants and AD/HD



Tricyclic Antidepressants:

- Desipramine (Norpramin, Pertofane)
- Imipramine (Tofranil)
- Nortriptyline (Pamelor)

(Wilens, T.E., Spencer, T.J., and Biederman, J. (2000). Pharmacotherapy of Attention-Deficit/Hyperactivity Disorder. In T.E. Brown (Ed.). Attention-Deficit Disorders and Comorbidities in Children, Adolescents and Adults. Washington, DC: American Psychiatric Press, pp. 509-535.)

(Arnold, L.E. (2002). Contemporary Diagnosis and Management of Attention-Deficit/Hyperactivity Disorder, Second Edition. Newtown, PA: Handbooks in Health Care.

Tricyclates and AD/HD

“The antidepressants are generally considered second-line drugs of choice in the treatment of ADHD” (p. 515).

(Wilens, T.E., Spencer, T.J., and Biederman, J. (2000). Pharmacotherapy of Attention-Deficit/Hyperactivity Disorder. In T.E. Brown (Ed.). Attention-Deficit Disorders and Comorbidities in Children, Adolescents and Adults. Washington, DC: American Psychiatric Press, pp. 509-535.)

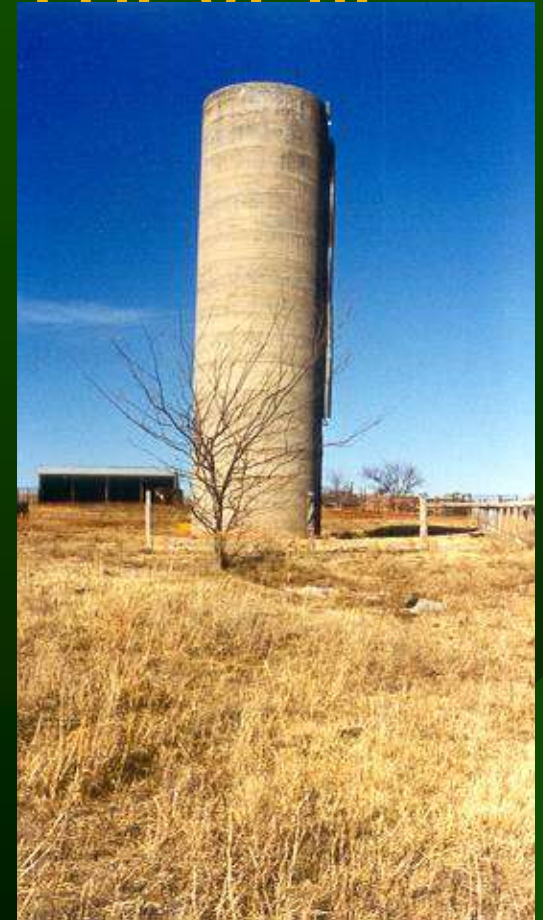
Tricyclic Antidepressants

“Despite extensive experience in children and adolescents...there are only two studies of these agents for treating adult AD/HD. Compared to the stimulants, TCAs have negligible abuse potential, convenient single daily dosing, and efficacy for coexisting anxiety and depression” (p. 156).

(Wilens, T.E., Spencer, T.J., and Biederman, J. (2000). Pharmacotherapy of Attention-Deficit/Hyperactivity Disorder. In T.E. Brown (Ed.). Attention-Deficit Disorders and Comorbidities in Children, Adolescents and Adults. Washington, DC: American Psychiatric Press, pp. 509-535.)

Common Side Effects with Tricyclic Antidepressants:

- Dry Mouth
- Constipation
- Blurred vision
- Weight gain
- Sexual dysfunction



(Wilens, T.E., Spencer, T.J., and Biederman, J. (2000). Pharmacotherapy of Attention-Deficit/Hyperactivity Disorder. In T.E. Brown (Ed.). Attention-Deficit Disorders and Comorbidities in Children, Adolescents and Adults. Washington, DC: American Psychiatric Press, pp. 509-535.)

Less Common Side Effects of Tricyclic Antidepressants:

- Reduced cardiac conduction
- Elevated blood pressure and heart rate
- Must monitor

(Wilens, T.E., Spencer, T.J., and Biederman, J. (2000). Pharmacotherapy of Attention-Deficit/Hyperactivity Disorder. In T.E. Brown (Ed.). Attention-Deficit Disorders and Comorbidities in Children, Adolescents and Adults. Washington, DC: American Psychiatric Press, pp. 509-535.)

Last Word on Tricyclics:

“TCAs are a less optimal choice than stimulants in addressing AD/HD symptomology for several reasons—response rates are less robust than for stimulants, and side effects are more difficult to tolerate, with more lethal potential in overdose compared to stimulants” (p. 161).

(Wilens, T.E., Spencer, T.J., and Biederman, J. (2000). Pharmacotherapy of Attention-Deficit/Hyperactivity Disorder. In T.E. Brown (Ed.). Attention-Deficit Disorders and Comorbidities in Children, Adolescents and Adults. Washington, DC: American Psychiatric Press, pp. 509-535.)

Other Antidepressants used with AD/HD

- Wellbutrin (Bupropion)
- Effexor (Venlafaxine)
- Strattera (Atomoxetine)



(Prince, J., and Wilens, T. (2002). Medications Used in the Treatment of AD/HD in Women. In P.O. Quinn, and K.G. Nadeau (Eds.), Gender Issues and AD/HD. Silver Spring, MD: Advantage, pp. 144-182.)

Wellbutrin and AD/HD:

- An atypical antidepressant
- Enhances noradrenergic and dopaminergic neurotransmission
- Moderately effective in AD/HD children
- Second line agent with Adult AD/HD

(Prince, J., and Wilens, T. (2002). Medications Used in the Treatment of AD/HD in Women. In P.O. Quinn, and K.G. Nadeau (Eds.), Gender Issues and AD/HD. Silver Spring, MD: Advantage, pp. 144-182.)

Wellbutrin and AD/HD:

May be helpful with Adults who have comorbid:

- Substance Abuse
- Smoking
- Mood Disorder

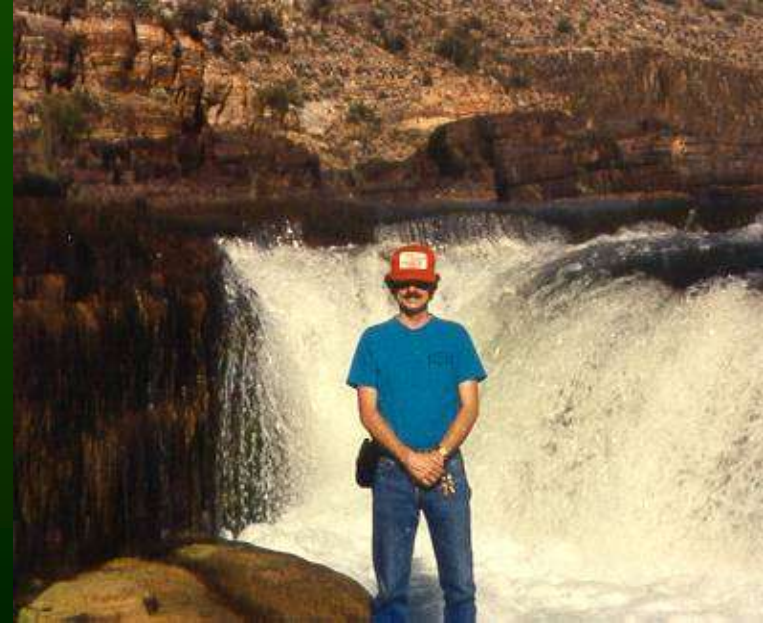


(Prince, J., and Wilens, T. (2002). Medications Used in the Treatment of AD/HD in Women. In P.O. Quinn, and K.G. Nadeau (Eds.), Gender Issues and AD/HD. Silver Spring, MD: Advantage, pp. 144-182.)

Wellbutrin and AD/HD:

Use Caution when AD/HD Adults are:

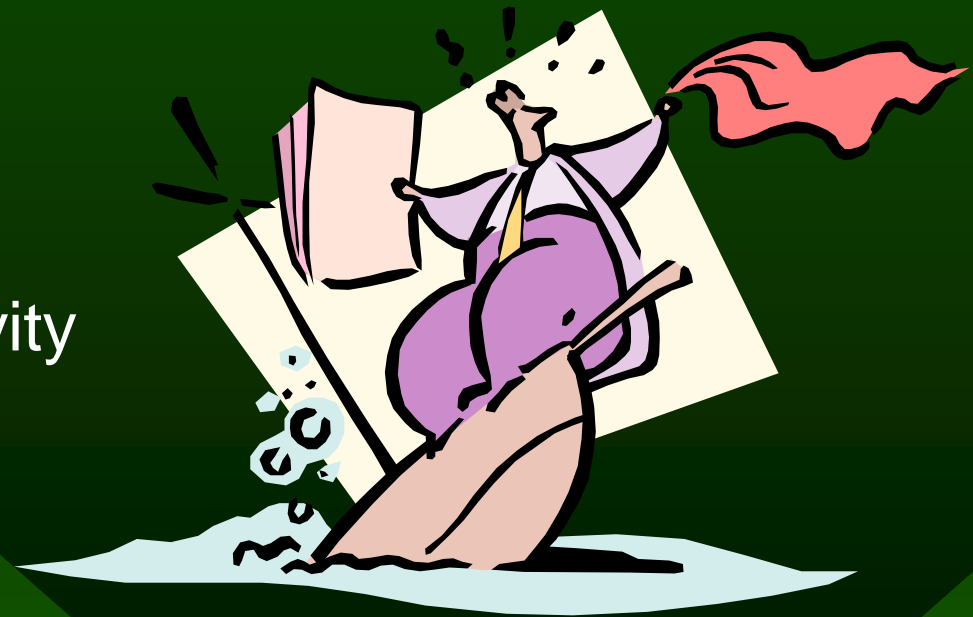
- Active Marijuana Users
- At Risk of Seizures



(Prince, J., and Wilens, T. (2002). Medications Used in the Treatment of AD/HD in Women. In P.O. Quinn, and K.G. Nadeau (Eds.), Gender Issues and AD/HD. Silver Spring, MD: Advantage, pp. 144-182.)

Wellbutrin Side Effects:

- Excitement
- Agitation
- Increased motor activity
- Insomnia
- Tics and Tremor



(Prince, J., and Wilens, T. (2002). Medications Used in the Treatment of AD/HD in Women. In P.O. Quinn, and K.G. Nadeau (Eds.), Gender Issues and AD/HD. Silver Spring, MD: Advantage, pp. 144-182.)

Effexor and AD/HD

- May be useful at higher doses with AD/HD and comorbid anxiety and/or depression
- Only SSRI that works with AD/HD

(Prince, J., and Wilens, T. (2002). Medications Used in the Treatment of AD/HD in Women. In P.O. Quinn, and K.G. Nadeau (Eds.), Gender Issues and AD/HD. Silver Spring, MD: Advantage, pp. 144-182.)

(Connor, D.F. (1998). Other Medications In the Treatment of Child and Adolescent ADHD. In R.A. Barkley (Ed.), Attention Deficit Hyperactivity Disorder, Second Edition. New York, NY: Guilford, pp. 564-606).

Effexor and AD/HD Side Effects:

- Nausea
- Gastrointestinal distress
- Anorgasmia
- Elevated blood Pressure
- Discontinuation symptoms



(Prince, J., and Wilens, T. (2002). Medications Used in the Treatment of AD/HD in Women. In P.O. Quinn, and K.G. Nadeau (Eds.), Gender Issues and AD/HD. Silver Spring, MD: Advantage, pp. 144-182.)

Kevin, Give These Poor People a Break!



Hey, Let's Get Going!



Strattera and AD/HD

- First medication to receive FDA approval for adult and child AD/HD; first new AD/HD med. in 30 years
- No abuse potential; not schedule 2; phone in prescriptions
- 6 double-blind studies; as of October 2002 tested on over 4,000 patients; 700 over one year

(Wachter, K. (January, 2003). Nonstimulant Atomoxetine Approved for ADHD. Clinical Psychiatry News, 31 (1), p. 5.)

Strattera and AD/HD

- Noradrenergic reuptake inhibitor
- “Preliminary studies suggest efficacy in children and adults...” (p. 20).

(Prince, J., and Wilens, T. (2002). Medications Used in the Treatment of AD/HD in Women. In P.O. Quinn, and K.G. Nadeau (Eds.), Gender Issues and AD/HD. Silver Spring, MD: Advantage, pp. 144-182.)

(Anonymous (April, 2002). Atomoxetine for ADHD. Child & Adolescent Psychiatry Alerts. 4 (4), pp. 20-21.)

Strattera and AD/HD

- Well tolerated and moderately effective in treating AD/HD symptoms
- Longer time to response
- Good alternative to stimulants
- Good for comorbid mood, anxiety and substance abuse

(Prince, J., and Wilens, T. (2002). Medications Used in the Treatment of AD/HD in Women. In P.O. Quinn, and K.G. Nadeau (Eds.), Gender Issues and AD/HD. Silver Spring, MD: Advantage, pp. 144-182.)

STRATTERA AND AD/HD

- It has a 5 hour half-life in the blood stream, but it lasts much longer in the brain.
- It takes about 3 weeks to get to therapeutic levels.
- Typically they will give a stimulant along with it until therapeutic dosage is reached
- Dosage 1.8 mg per kg

STRATTERA AND AD/HD

- It is a norepinephrine reuptake inhibitor.
- It can be effective with Inattentive ADHD.

(Streitfeld, S. (April 24, 2003). Clinical Perspectives On a New Treatment Option for Attention-Deficit/Hyperactivity Disorder Paper presented in Tucson, AZ, Eli Lilly, Co.)

Strattera and AD/HD

- Takes 4 to 6 weeks to get to therapeutic levels.
- 23-24 hour half-life
- No rebound
- Works on right parietal lobe-Selective Attention
- Expensive
- Can take Ritalin until Strattera reaches therapeutic Levels

Strattera and ADHD

- Strattera may slow or block the reuptake of norepinephrine, keeping more of it in the synapse.
- Strattera is not controlled under the Controlled Substances Act.

(February, 2003). FDA Approves Strattera, First Noncontrolled Option for the Treatment of Attention-Deficit/Hyperactivity Disorder. ADHD Report, 11, p. 16.)

Strattera and AD/HD

Side Effects:

- Rhinitis (33%)
- Headache (20%)
- Anorexia (16.7%)
- Dizziness (16.7%)



(Anonymous (January, 2002). Special Report: New Research on Investigational Drug for ADHD- Studies Reveal Atomoxetine Effective for ADHD. The Brown University Child and Adolescent Psychopharmacology Update, 4 (1), pp. 1, 3-6.)

Strattera and AD/HD

Most Common Side Effects in Adults:

- Sleeping problems
- Decreased appetite
- Stomach upset
- Nausea or vomiting
- Problems urinating
- Sexual Problems

(Wachter, K. (January, 2003). Nonstimulant Atomoxetine Approved for ADHD. Clinical Psychiatry News, 31 (1), p. 5.)



Strattera and AD/HD

- PDR Warning about liver problems. Two people have had liver function problems who have been placed on this medication.

Surman, C. (May 12, 2005). AD/HD and Comorbidity. Paper presented at the National Attention Deficit Disorder Association Annual Conference May 12-15, 2005, Tucson, AZ.

Roboxitine and AD/HD

- Medication like Strattera used with AD/HD in England.

Young, J. (May 13, 2005). Contemporary Approaches to AD/HD Diagnosis, Impact and Treatment. Paper presented at the National Attention Deficit Disorder Association Annual Conference, May 12-15, 2005, Tucson, AZ.

Alpha 2 Agonists- Antihypertensives

- Clonidine (Catapres-also in patch)
- Guanfacine (Tenex)

These have been used in severely hyperactive and/or aggressive AD/HD children. These may help adults with hyperarousal due to prolonged disorganization and stimulant side effects.

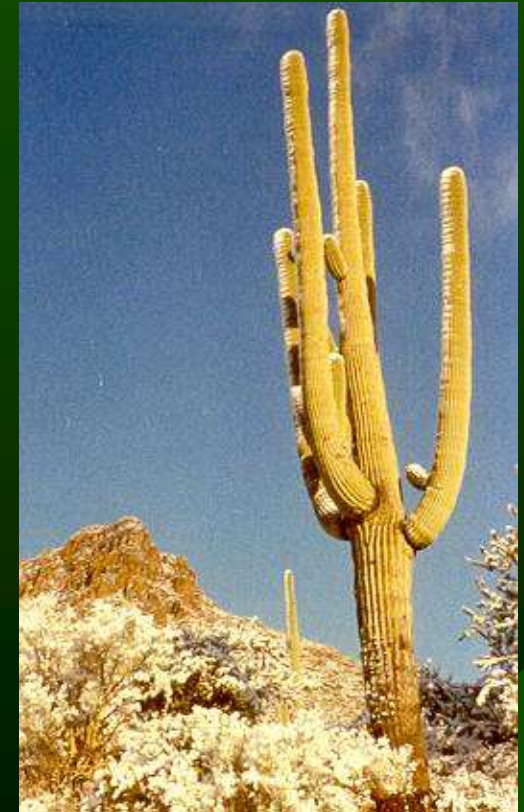
(Arnold, L.E. (2002). Contemporary Diagnosis and Management of Attention-Deficit/Hyperactivity Disorder, Second Edition. Newtown, PA:Handbooks in Health Care.)

(Prince, J., and Wilens, T. (2002). Medications Used in the Treatment of AD/HD in Women. In P.O. Quinn, and K.G. Nadeau (Eds.), Gender Issues and AD/HD. Silver Spring, MD: Advantage, pp. 144-182.)

Alpha 2 Agonists- Antihypertensives

Side Effects:

- Sedation
- Hypotensive dizziness
- Hypersensitive rebound with missed dose
- Sudden Deaths
- Dry mouth
- Response delayed



(Arnold, L.E. (2002). Contemporary Diagnosis and Management of Attention-Deficit/Hyperactivity Disorder, Second Edition. Newtown, PA:Handbooks in Health Care.)

Modafanil-Provigil and AD/HD

- Treatment of Narcolepsy
- “...indirectly activate the frontal cortex through the hypothalamus and/or tuberomammillary nucleus rather than via central dopaminergic and/or noradrenergic pathways” (p. 165)
- 48% efficacy rate
- Use with refractory AD/HD patients

(Prince, J., and Wilens, T. (2002). Medications Used in the Treatment of AD/HD in Women. In P.O. Quinn, and K.G. Nadeau (Eds.), Gender Issues and AD/HD. Silver Spring, MD: Advantage, pp. 144-182.)

Modafanil-Provigil and AD/HD

- Barkley: It doesn't work with the Combined Type. We don't know about the Inattentive Type
- Swanson: It works well with AD/HD.

(Barkley, R.A. (2002). ADHD and Oppositional Defiant Children. Seminar presented, February 19-20, The Institute for Continuing Education, Fairhope, AL, in Phoenix, AZ, personal communication.)

(Swanson, J.M (November 19, 2002). SAS Special Clinical Session: New Medication Update. Paper presented at the 14th Annual CHADD International Conference, Miami Beach, FL.)

Modafanil-Provigil and AD/HD

Side Effects:

- Headache
- Infection
- Nausea
- Nervousness
- Trouble Sleeping



(Provigil Consumer Information (2003). FDA Website:
www.fda.gov/cder/consumerinfo/drug/provigil.html, p. 2)

Amantadine and AD/HD

- Antiviral medication used with Parkinson's disease
- William Singer, M.D. at Harvard Medical School and the Center for Developmental Neurology In Wellesley, MA uses lower dosages of the liquid form of this medication with AD/HD and it works.

Hallowell, E.M., and Ratey, J.J. (2005). Delivered From Distraction. New York, NY: Ballantine, pp. 251-253.

Amantadine and AD/HD

- Smooth and even therapeutic effect, lasts 24 hours
- Helps with executive functioning
- No abuse potential
- Helps with Developmental Coordination Disorder

Hallowell, E.M., and Ratey, J.J. (2005). Delivered From Distraction. New York, NY: Ballantine, pp. 251-253.

Aricept and AD/HD

- This medication and others of the same family has been found to help memory problems in a subgroup of those with AD/HD.

Surman, C. (May 12, 2005). AD/HD and Comorbidity. Paper presented at the National Attention Deficit Disorder Association Annual Conference May 12-15, 2005, Tucson, AZ.

Special Treatment Considerations with AD/HD Women

S-Adenosylmethionine (SAM-e): May be helpful in refractory AD/HD women with Depression; needs research though.

(Prince, J., and Wilens, T. (2002). Medications Used in the Treatment of AD/HD in Women. In P.O. Quinn, and K.G. Nadeau (Eds.), Gender Issues and AD/HD. Silver Spring, MD: Advantage, pp. 144-182.)

Special Treatment Considerations with AD/HD Women

Estrogen:

- Has a positive effect on neurotransmitters that control mood, behavior, and cognition.
- It effects serotonin, dopamine, and norepinephrine.
- It effects the D2 receptors.

(Quinn, P. (2002). Hormonal Fluctuations and the Influence of Estrogen in the Treatment of Women with AD/HD. In P.O. Quinn, and K. G. Nadeau (Eds.), Gender Issues and AD/HD: Research, Diagnosis and Treatment. Silver Spring, MD: Advantage, pp. 183-199).

Special Treatment Considerations with AD/HD Women

“With the onset of menses and monthly fluctuations in estrogen states, females with AD/HD frequently experience a worsening of their symptoms. The same holds true for menopausal women, who experience a worsening of AD/HD symptoms that were previously under control...

Special Treatment Considerations with AD/HD Women

“...In addition, many women report that medications used to treat their AD/HD symptoms are no longer as effective in the premenstrual period or with the onset of menopause” (p. 186).

(Quinn, P. (2002). Hormonal Fluctuations and the Influence of Estrogen in the Treatment of Women with AD/HD. In P.O. Quinn, and K. G. Nadeau (Eds.), Gender Issues and AD/HD: Research, Diagnosis and Treatment. Silver Spring, MD: Advantage, pp. 183-199).

Special Treatment Considerations with AD/HD Women

“For women with AD/HD whose symptoms worsen during the monthly cycle or with menopause, exogenous estrogen administration...can help stabilize mood, improve memory, and/or increase medication effectiveness” (p. 195)

(Quinn, P. (2002). Hormonal Fluctuations and the Influence of Estrogen in the Treatment of Women with AD/HD. In P.O. Quinn, and K. G. Nadeau (Eds.), Gender Issues and AD/HD: Research, Diagnosis and Treatment. Silver Spring, MD: Advantage, pp. 183-199).

Special Treatment Considerations with AD/HD Women

“Combined therapy using stimulants, an SSRI...and estrogen replacement may be necessary for women with worsening of AD/HD symptoms, PMS, or PMDD” (p. 195).

(Quinn, P. (2002). Hormonal Fluctuations and the Influence of Estrogen in the Treatment of Women with AD/HD. In P.O. Quinn, and K. G. Nadeau (Eds.), Gender Issues and AD/HD: Research, Diagnosis and Treatment. Silver Spring, MD: Advantage, pp. 183-199).

Special Treatment Considerations with AD/HD Women

Birth and Breastfeeding for AD/HD Women:

- No Stimulants
- Tricyclics and SSRIs MAY be OK
- Exceptionally close consultation and monitoring with a physician recommended

(Goodman, D., and Quinn, P. (2002). Psychotropic Medication Use During Pregnancy: A Concern for Women with AD/HD, In P.O. Quinn, and K.G. Nadeau (Eds.), Gender Issues and AD/HD: Research, Diagnosis and Treatment. Silver Spring, MD: Advantage, pp. 200-218.)

Alternative and Integrative Medicine Treatments of AD/HD

- ***National Center for Complementary and
Alternative Medicine:***

www.nccam.nih.gov



Alternative and Integrative Medicine Treatments of AD/HD

Wilens, Spencer, and Prince wrote, "...non-pharmacological treatment of ADD in adults remains more speculative...Adults with the disorder who have an addiction, or those who report distress related to their ADD...should be directed to appropriate psychotherapeutic intervention with clinicians who are knowledgeable about the disorder" (p. 33)

(Wilens, T.E., Spencer, T.J., and Prince, J. (1997). Diagnosing ADD in Adults. Attention!, 3 (4), pp. 27-33.)

Alternative and Integrative Medicine Treatments of AD/HD

“We should all eat dung, because a thousand flies can’t be wrong!”

Russell Barkley, Ph.D.

(Barkley, R.A. (1998). ADHD in Children, Adolescents, and Adults: Diagnosis Assessment and Treatment. New England Educational Institute, Cape Cod Symposia, August, Pittsfield, MA.)

No Scientific Evidence Supports the Following Treatments for AD/HD

- Mega-Vitamins
- Mineral Therapy
- Anti-Motion Sickness Medications
- Treatment of candida albicans
- Essential fatty acid
- Anti-Oxidants (Pycnogenol)
- Oil of Evening Primrose



No Scientific Evidence Supports the Following Treatments for AD/HD

- Amino Acid Supplements
- Chiropractic Manipulation
- “God’s Recipe”
- DHEA (dehydroepiandrosterone)
- Ginko Biloba



No Scientific Evidence Supports the Following Treatments for AD/HD

- Ginseng
- Elimination of Sugar



Very, Very Little Scientific Evidence supports the Following Treatments:

- Additive Free Diets
- Allergen Free Diets
- EEG Biofeedback
- Sensory Integration Training
- St. John's Wart



Integrative Medications

References

- Barkley, R.A. (1998). Attention Deficit Hyperactivity Disorder, Second Edition. New York, NY: Guilford.
- Ingersoll, B., and Goldstein, S. (1993). Attention-Deficit Disorder and Learning Disabilities: Realities Myths and Controversial Treatments. New York, NY: Doubleday.
- Ramundo, P. (1997). Alternative Treatments for ADD: How Much Reality? How Much Snake Oil? Focus:Official Newsletter of the ADDA. 4 , p. 1-2,9.
- Conners, C.K. (1989). Feeding the Brain: How Foods Affect Children. New York, NY: Plenum.
- Fleissner, R. (November, 1997). (Personal Communication)

Places to Check Out “New” Treatments for AD/HD

- National Center for Complimentary and Alternative Medicine: www.nccam.nih.gov
- Ingersoll, B., and Goldstein, S. (1993). Attention-Deficit Disorder and Learning Disabilities: Realities, Myths and Controversial Treatments. New York, NY: Doubleday.
- www.quackwatch.com

Places to Check Out “New” Treatments for AD/HD

- www.chadd.org
- Cook, P. (1997). Knowledge is Power: Guidelines for Being an Informed Health Care Customer. Attention!, 4 (2), pp. 14-17.
- Arnold, L.E. (2002). Contemporary Diagnosis and Management of Attention-Deficit/Hyperactivity Disorder. Newtown, PA: Handbooks in Health Care.

Psychotherapy and AD/HD

Wilens, Spencer, and Prince wrote, "...non-pharmacological treatment of ADD in adults remains more speculative...Adults with the disorder who have an addiction, or those who report distress related to their ADD...should be directed to appropriate psychotherapeutic intervention with clinicians who are knowledgeable about the disorder" (p. 33)

(Wilens, T.E., Spencer, T.J., and Prince, J. (1997). Diagnosing ADD in Adults. Attention!, 3 (4), pp. 27-33.)

Psychotherapy and AD/HD

“As psychotherapists working with persons with learning disabilities, we are presented with the results of the damage due to misunderstanding and mistreatment, and we have to help our clients heal from that damage. Helping our clients to understand what their learning disabilities are, how they have been affected by them, how their strengths and...

Psychotherapy and AD/HD

“...weaknesses have helped or hindered them in school, and how they help or hinder them in life beyond school—these tasks are at the heart of psychotherapy with persons with learning disabilities” (p. 187).

(Einhorn, J. (2000). Psychotherapy of Two Invisible Sources of Distress: A Framework for Therapy. In Wren (Ed.), Hanging by a Thread: Understanding and Counseling Adults with Learning Disabilities and ADD. New York, NY: Norton, pp. 174-187).

Psychotherapy and AD/HD

“Cognitive-Behavioral based psychotherapeutic interventions, which are gaining in popularity in treating adults’ ADD, appear particularly useful in those adults who have a history of addiction” (p. 33).

(Wilens, T.E., Spencer, T.J., and Prince, J. (1997). Diagnosing ADD in Adults. Attention!, 3 (4), pp. 27-33.)

Psychotherapy and AD/HD

Remember Alexithymia and AD/HD?

Lane and Schwartz did extensive research into matching the emotional awareness of patients to the type of psychotherapy and psychopharmacology in order to learn what worked for what type of patients.

(Lane, D.D., and Schwartz, G.E. (1992). Levels of Emotional Awareness: Implications for Psychotherapeutic Integration. Journal of Psychotherapy Intergration. 2 (1), p. 1-18 [From Reprint].)

Psychotherapy and AD/HD

5. Prefrontal Cortex—Blends of Blends of Emotion—
Existential crisis—Existential, Insight Therapy
4. Paralimbic—Blends of Emotion—Neurosis—Insight
Therapy
3. Limbic—Discrete Emotion—Persistent conscious
distress (e.g., anxiety)—Cognitive therapy

Psychotherapy and AD/HD

2. Diencephalon—Action Tendencies—Impulsive or compulsive behavior—Behavior modification, movement therapy, physical restraint
1. Brainstem—Visceral Action—Somatic distress—Pharmacological, biofeedback, relaxation

(Lane, D.D., and Schwartz, G.E. (1992). Levels of Emotional Awareness: Implications for Psychotherapeutic Integration. Journal of Psychotherapy Intergration. 2 (1), p. 1-18 [From Reprint].)

Psychotherapy and AD/HD

“Treatment for adults with ADHD begins at the time they are diagnosed” (p. 584).



(Murphy, K.R. (1998). Psychological Counseling of Adults with ADHD. In R.A. Barkley (Ed.), Attention Deficit Hyperactivity Disorder, Second Edition. New York, NY: Guilford, pp. 582-591.)

Psychotherapy and AD/HD

Murphy said that AD/HD adults are more apt to follow through with treatment if:

- They are taught to understand the disorder
- They are given a good explanation of what causes it
- They understand it is treatable
- They know there is hope for them

(Murphy, K.R. (1998). Psychological Counseling of Adults with ADHD. In R.A. Barkley (Ed.), Attention Deficit Hyperactivity Disorder, Second Edition. New York, NY: Guilford, pp. 582-591.)

Psychotherapy and AD/HD

A good knowledge base can, "...help adults make some sense of what has been troubling them, help them set realistic and attainable goals, and ease their frustration" (p. 585).

(Murphy, K.R. (1998). Psychological Counseling of Adults with ADHD. In R.A. Barkley (Ed.), Attention Deficit Hyperactivity Disorder, Second Edition. New York, NY: Guilford, pp. 582-591.)

Psychotherapy and AD/HD

Things to inform an AD/HD adult during the evaluation interpretation session(s):

- Explain the diagnostic process and criteria
- AD/HD is a neurobiological condition, not a character defect
- Be empathic
- Give them a packet of AD/HD information

Psychotherapy and AD/HD

Things to explain (continued):

- Explain how AD/HD is related to school, work, social and family problems and reframe their past in light of AD/HD
- Provide information about treatment strategies
- Educate them about medication

Psychotherapy and AD/HD

Things to explain (continued)

- Address fears and myths
- Provide memory aids (e.g. video/audio tape, notes, etc).
- There is no cure just symptom reduction

(Murphy, K.R. (1998). Psychological Counseling of Adults with ADHD. In R.A. Barkley (Ed.), Attention Deficit Hyperactivity Disorder, Second Edition. New York, NY: Guilford, pp. 582-591.)

Psychotherapy and AD/HD

Things to keep in mind:

- Short-term psychosocial interventions do not generalize outside therapy environment
- Psychosocial interventions can help with AD/HD side effects

(Murphy, K.R. (1998). Psychological Counseling of Adults with ADHD. In R.A. Barkley (Ed.), Attention Deficit Hyperactivity Disorder, Second Edition. New York, NY: Guilford, pp. 582-591.)

Psychotherapy and AD/HD – Remember to Treat Grief

Murphy and LeVert wrote of the stages of coping with being diagnosed AD/HD:

Stage 1- Relief and Optimism

Stage 2- Denial

Stage 3- Anger and Resentment

Stage 4- Grief

Stage 5- Mobilization

Stage 6- Accommodation

(Murphy, K.R., and LeVert, S. (1995). Out of the Fog. New York, NY: Hyperion.)

Psychotherapy and AD/HD

Steps in Individual Counseling:

1. Educate about AD/HD and set goals
2. Monitor progress, medication concerns, and treatment approaches
3. Teach self-management strategies
4. Teach how AD/HD can influence life decisions (+/-)
5. Self-knowledge – goodness of fit life decisions

Psychotherapy and AD/HD

6. Be an active pragmatic therapist
7. Provide specific training in time management, organizational skills, communication skills, anger control, etc.

(Murphy, K.R. (1998). Psychological Counseling of Adults with ADHD. In R.A. Barkley (Ed.), Attention Deficit Hyperactivity Disorder, Second Edition. New York, NY: Guilford, pp. 582-591.)

Psychotherapy and AD/HD

“STRESS
THE
POSITIVE!”

(Murphy, K.R. (1998). Psychological Counseling of Adults with ADHD. In R.A. Barkley (Ed.), Attention Deficit Hyperactivity Disorder, Second Edition. New York, NY: Guilford, pp. 582-591.)



Psychotherapy and AD/HD

Group Counseling:

- No research
- Need well informed facilitator
- CHADD, ADDA, LDA, IDA, etc.



(Murphy, K.R. (1998). Psychological Counseling of Adults with ADHD. In R.A. Barkley (Ed.), Attention Deficit Hyperactivity Disorder, Second Edition. New York, NY: Guilford, pp. 582-591.)

Psychotherapy and AD/HD

“The primary focus of this chapter is to introduce a structured treatment approach referred to as *Neurocognitive Psychotherapy*, a term employed to highlight the overriding importance of treating AD/HD as a neurobiological disorder” (p. 221).

(Nadeau, K. (2002). Neurocognitive Psychotherapy for Women with AD/HD. In P.O. Quinn, and K.G. Nadeau (Eds.), Gender Issues and AD/HD: Research, Diagnosis and Treatment. Silver Spring, MD: Advantage, pp. 220-254.)

Psychotherapy and AD/HD

“The clinician must develop a set of therapeutic tools to help their client address the cognitive challenges of AD/HD in concrete and practical ways...Many psychotherapists, however, especially those trained in a more psychodynamic approach, may find these techniques alien, or may feel these issues should be addressed outside the context of psychotherapy” (p. 221).

(Nadeau, K. (2002). Neurocognitive Psychotherapy for Women with AD/HD. In P.O. Quinn, and K.G. Nadeau (Eds.), Gender Issues and AD/HD: Research, Diagnosis and Treatment. Silver Spring, MD: Advantage, pp. 220-254.)

Psychotherapy and AD/HD

“Clinicians trained in more ‘traditional’ psychotherapy techniques may have a tendency to focus on the psychological ‘baggage’ of ADHD—depression, anxiety, and low self-esteem—never relating them to the AD/HD issues that generate such feelings. Instead, such feelings may be interpreted psychodynamically, while the real, practical challenges posed by AD/HD go entirely unexplained” (p. 222).

(Nadeau, K. (2002). Neurocognitive Psychotherapy for Women with AD/HD. In P.O. Quinn, and K.G. Nadeau (Eds.), Gender Issues and AD/HD: Research, Diagnosis and Treatment. Silver Spring, MD: Advantage, pp. 220-254.)

Psychotherapy and AD/HD

“MANY WOMEN WHO SEEK treatment for AD/HD are already engaged in more traditional psychotherapy. They have known that ‘something was wrong,’ but neither they nor their psychotherapist knew that the ‘something’ was related to AD/HD. Often such traditional psychotherapy has been helpful in dealing with destructive early childhood experiences, trauma, or depression...

Psychotherapy and AD/HD

“...However, even when such issues have been dealt with effectively, these women are left with a feeling of being out of control in their daily lives, overwhelmed by issues that others deal with more evenly” (p. 223).

(Nadeau, K. (2002). Neurocognitive Psychotherapy for Women with AD/HD. In P.O. Quinn, and K.G. Nadeau (Eds.), Gender Issues and AD/HD: Research, Diagnosis and Treatment. Silver Spring, MD: Advantage, pp. 220-254.)

Psychotherapy and AD/HD

Therapeutic issues that must be considered:

- Lateness – therapeutic resistance, time blindness, or both?
- Poor Social Awareness – narcissistic self-absorption or AD/HD inattentiveness?

Psychotherapy and AD/HD

Therapeutic issues (continued):

- Intense Emotional Overreactions – Borderline Personality Disorder, limbic system, or both
- Forgetfulness – unconscious avoidance, or AD/HD? (Nadeau, 2002, p. 224)

(Nadeau, K. (2002). Neurocognitive Psychotherapy for Women with AD/HD. In P.O. Quinn, and K.G. Nadeau (Eds.), Gender Issues and AD/HD: Research, Diagnosis and Treatment. Silver Spring, MD: Advantage, pp. 220-254.)

Psychotherapy and AD/HD

“When neurologically –driven patterns are interpreted and treated as intrapsychic issues, not only is treatment unsuccessful, but it is often damaging to the client” (p. 224).

(Nadeau, K. (2002). Neurocognitive Psychotherapy for Women with AD/HD. In P.O. Quinn, and K.G. Nadeau (Eds.), Gender Issues and AD/HD: Research, Diagnosis and Treatment. Silver Spring, MD: Advantage, pp. 220-254.)

Psychotherapy and AD/HD

“Recently, cognitive-based psychotherapies...have been found to be effective, leading to improvements in AD/HD, anxiety, depression, and overall global functioning much greater than could be achieved through medication alone” (p. 225).

(Nadeau, K. (2002). Neurocognitive Psychotherapy for Women with AD/HD. In P.O. Quinn, and K.G. Nadeau (Eds.), Gender Issues and AD/HD: Research, Diagnosis and Treatment. Silver Spring, MD: Advantage, pp. 220-254.)

Psychotherapy and AD/HD

”...consensus seems to be growing...that the self-defeating habits developed by adults with AD/HD can be improved, over time, with a combination of medications, support, environmental manipulations, education, anticipatory guidance, and coaching” (p. 225).

(Nadeau, K. (2002). Neurocognitive Psychotherapy for Women with AD/HD. In P.O. Quinn, and K.G. Nadeau (Eds.), Gender Issues and AD/HD: Research, Diagnosis and Treatment. Silver Spring, MD: Advantage, pp. 220-254.)

Psychotherapy and AD/HD

Therapeutic Goals:

- Improving Cognitive Functions
- Developing Compensatory Strategies
- Restructuring the environment



(Nadeau, K. (2002). Neurocognitive Psychotherapy for Women with AD/HD. In P.O. Quinn, and K.G. Nadeau (Eds.), Gender Issues and AD/HD: Research, Diagnosis and Treatment. Silver Spring, MD: Advantage, pp. 220-254.)

Psychotherapy and AD/HD

AD/HD Friendly Therapy Session

1. Provide lots of structure
2. No rambling
3. Homework assignments
4. Memory aids for continuity (e.g., tape, notes)
5. Treat comorbidities



(Nadeau, K. (2002). Neurocognitive Psychotherapy for Women with AD/HD. In P.O. Quinn, and K.G. Nadeau (Eds.), Gender Issues and AD/HD: Research, Diagnosis and Treatment. Silver Spring, MD: Advantage, pp. 220-254.)

Kevin T. Blake, Ph.D., P.L.C.

1/7/2016

449

Psychotherapy and AD/HD



Therapist should have ongoing contact with AD/HD coach.

(Nadeau, K. (2002). Neurocognitive Psychotherapy for Women with AD/HD. In P.O. Quinn, and K.G. Nadeau (Eds.), Gender Issues and AD/HD: Research, Diagnosis and Treatment. Silver Spring, MD: Advantage, pp. 220-254.)

Psychotherapy and AD/HD



Therapy can be especially useful for AD/HD
comorbidities.

(Triolo, S.J. (1999). Psychotherapeutic Treatment of AD/HD Adults. In S. J. Triolo (Ed.). Attention Deficit Hyperactivity Disorder in Adults: A Practitioner's Handbook. Philadelphia, PA: Bruner/Mazel, pp. 145-194.)

Psychotherapy and AD/HD

“The overall impression regarding treatment is that medication is effective in providing relief of ADHD symptoms and that it has an advantage in its ability to deliver acute remedy. However, long-term maintenance and sensitivity to changing environments throughout the patient’s life require psychotherapeutic forms of treatment” (p. 146).

(Triolo, S.J. (1999). Psychotherapeutic Treatment of AD/HD Adults. In S. J. Triolo (Ed.). Attention Deficit Hyperactivity Disorder in Adults: A Practitioner’s Handbook. Philadelphia, PA: Bruner/Mazel, pp. 145-194.)

Psychotherapy and AD/HD

Two Main Points:

1. Not all people with AD/HD are alike
2. Therapy needs to treat the entire person; not just AD/HD.

(Triolo, S.J. (1999). Psychotherapeutic Treatment of AD/HD Adults. In S. J. Triolo (Ed.). Attention Deficit Hyperactivity Disorder in Adults: A Practitioner's Handbook. Philadelphia, PA: Bruner/Mazel, pp. 145-194.)



Psychotherapy and AD/HD

If the person identifies too much with being AD/HD they MAY also have a character disorder. They may also feel an inner emptiness. Do not terminate too early – Treat the entire person.

(Triolo, S.J. (1999). Psychotherapeutic Treatment of AD/HD Adults. In S. J. Triolo (Ed.). Attention Deficit Hyperactivity Disorder in Adults: A Practitioner's Handbook. Philadelphia, PA: Bruner/Mazel, pp. 145-194.)

Psychotherapy and AD/HD

Obsessive-Compulsive traits may be used by AD/HD adults to compensate for tendencies to lose concentration and focus. They may even have trouble attending to their O-C compensations.

(Triolo, S.J. (1999). Psychotherapeutic Treatment of AD/HD Adults. In S. J. Triolo (Ed.). Attention Deficit Hyperactivity Disorder in Adults: A Practitioner's Handbook. Philadelphia, PA: Bruner/Mazel, pp. 145-194.)

Psychotherapy and AD/HD

Longitudinal studies of AD/HD adults demonstrate they tend to have significant problems with depression, anxiety, communications with others and family conflicts.

(Triolo, S.J. (1999). Psychotherapeutic Treatment of AD/HD Adults. In S. J. Triolo (Ed.). Attention Deficit Hyperactivity Disorder in Adults: A Practitioner's Handbook. Philadelphia, PA: Bruner/Mazel, pp. 145-194.)

Psychotherapy and AD/HD

The Purposes of Psychosocial Treatments

- Educate about nature, causes and course of AD/HD and comorbidities
- Educate about the risks and benefits of treatments
- Monitor patients and adjust treatments

Psychotherapy and AD/HD

Purposes (Continued):

- Teach life and advocacy skills
- Provide therapy and support

(Brown, T.E. (2000). Psychosocial Interventions for Attention-Deficit Disorders and Comorbid Conditions. In T.E. Brown (Ed.), Attention-Deficit Disorders and Comorbidities in Children, Adolescents and Adults. Washington, DC: American Psychiatric Press, pp. 537-568.)

Psychotherapy and AD/HD

The Cognitive Therapy Treatment Sequence

1. Medication Stabilization
2. Psychoeducation
3. Modified Standard Cognitive Therapy
4. Cognitive Avoidance

Psychotherapy and AD/HD

Cognitive Sequence (Continued)

5. Schema Work

6. Environmental Restructuring

(McDermott, S.P. (2000). Cognitive Therapy for Adults with Attention-Deficit/Hyperactivity Disorder. In T.E. Brown (Ed.), Attention-Deficit Disorders and Comorbidities in Children, Adolescents and Adults. Washington, DC: American Psychiatric Press, pp. 598.)

Psychotherapy and AD/HD



Keep ongoing contact with the prescribing physician:

- To learn what side effects to look for
- To inform them when there are side effects
- To keep them apprised of the medication's efficacy
- To keep lines of communication open

(Kevin's Addition)

Family Therapy and AD/HD



Family therapy can help with negative communication, expressing anger, problem solving, and behavior management training.

(Triolo, S.J. (1999). Psychotherapeutic Treatment of AD/HD Adults. In S. J. Triolo (Ed.). Attention Deficit Hyperactivity Disorder in Adults: A Practitioner's Handbook. Philadelphia, PA: Bruner/Mazel, pp. 145-194.)

Family Therapy and AD/HD

Marriage and Family Counseling

- Deal with non-AD/HD spouse's marital dissatisfaction
- Locke-Wallace Marital Inventory
- Help spouse understand disorder
- AD/HD person must be seen as trying to change
- Align with spouse to reduce conflict

(Murphy, K.R. (1998). Psychological Counseling of Adults with ADHD. In R.A. Barkley (Ed.), Attention Deficit Hyperactivity Disorder, Second Edition. New York, NY: Guilford, pp. 582-591.)

Family Therapy and AD/HD

Things to keep in mind in M & F Therapy:

- Non-AD/HD spouse struggles to understand and appreciate partner's struggles
- Hard to understand that the AD/HD spouse's behavior is not under their control
- Those with AD/HD become flooded with emotion and may need 20 minute break to help regain composure and control: relaxation & exercise

Family Therapy and AD/HD

More to keep in mind with M & F therapy:

- Angry/resentful/neglected feelings of non-AD/HD spouse
- Keep information in small chunks for AD/HD person
- Slow therapy process down for memory deficits
- Mirrored feedback from AD/HD spouse for empathy

Psychotherapy and AD/HD

More to keep in mind in M & F therapy:

- Constantly check emotional level
- AD/HD is not the only problem in the marriage
- Also focus on non-AD/HD spouse's deficits

(Kelly, K, and Luquet, M. (1998). The Impact of Adult Attention-Deficit Disorder On Couples. In W. Luquet and M.T. Hannah (Eds.), Healing in the Relational Paradigm: The Imago Relationship Therapy Casebook. Bristol, PA: Bruner/Mazel, pp. 183-211.

Family Therapy and AD/HD



“A premature focus on family conflict will diffuse the clarity of the ADHD diagnosis” (p. 226).

(Everett, A.A., and Volgy-Everett, S. (1999).
Therapeutic Interventions for Adults with ADHD and their Families, Family Therapy for ADHD: Treating Children, Adolescents, and Adults. New York, NY Guilford, pp. 221-264.)

Family Therapy and AD/HD

“Unlike the procedure in more general marital therapy, in therapy for ADHD a specific treatment plan for improving the ADHD symptoms must be established first, preceding the broader marital and family treatment plan. If the ADHD symptoms do not improve, the marital therapy will often get bogged down in unresolved layers of past and current conflicts” (p. 226).

(Everett, A.A., and Volgy-Everett, S. (1999). Therapeutic Interventions for Adults with ADHD and their Families, Family Therapy for ADHD: Treating Children, Adolescents, and Adults. New York, NY Guilford, pp. 221-264.)

Family Therapy and AD/HD

AD/HD spouse explains with the therapist's support, the diagnosis to non-AD/HD spouse and children 8 years or older. The goals are to provide hope for treatment and acceptance of the disorder. This can also be done with the family of origin of the AD/HD adult.

(Everett, A.A., and Volgy-Everett, S. (1999). Therapeutic Interventions for Adults with ADHD and their Families, Family Therapy for ADHD: Treating Children, Adolescents, and Adults. New York, NY Guilford, pp. 221-264.)

Family Therapy and AD/HD

The therapist needs to advocate for the AD/HD adult with regard to explaining AD/HD symptoms and providing information about AD/HD.

(Everett, A.A., and Volgy-Everett, S. (1999). Therapeutic Interventions for Adults with ADHD and their Families, Family Therapy for ADHD: Treating Children, Adolescents, and Adults. New York, NY Guilford, pp. 221-264.)

Family Therapy and AD/HD

AREAS OF CONFLICT IN ADULT AD/HD HOME

1. Communication
2. Personal intimacy, attentiveness and sexuality
3. Leisure time for personal activities
4. Finances and money management

Family Therapy and AD/HD

5. Parenting responsibilities
6. Household tasks and responsibilities
7. Work and career issues
8. Alcohol and substance abuse (p. 233-234).

(Everett, A.A., and Volgy-Everett, S. (1999). Therapeutic Interventions for Adults with ADHD and their Families, Family Therapy for ADHD: Treating Children, Adolescents, and Adults. New York, NY Guilford, pp. 221-264.)

Family Therapy and AD/HD

More traditional family therapy can begin after the AD/HD symptoms have stabilized. If this happens too early, without evidence of change, anger and frustration of non-AD/HD spouse will control sessions.

(Everett, A.A., and Volgy-Everett, S. (1999). Therapeutic Interventions for Adults with ADHD and their Families, Family Therapy for ADHD: Treating Children, Adolescents, and Adults. New York, NY Guilford, pp. 221-264.)

Family Therapy and AD/HD

GOALS OF FAMILY THERAPY

- “1. Repair Personal Damage to partner and erosion of trust in the relationship
2. Develop a plan for accommodation by non-AD/HD spouse

AD/HD and Family Therapy

3. Build trust, companionship, communication, and intimacy
4. Develop a co-parenting partnership” (p. 241-242)

(Everett, A.A., and Volgy-Everett, S. (1999). Therapeutic Interventions for Adults with ADHD and their Families, Family Therapy for ADHD: Treating Children, Adolescents, and Adults. New York, NY Guilford, pp. 221-264.)

Family Therapy and AD/HD

- * AD/HD spouses are not aware of non-AD/HD spouses concerns and complaints
- * The non-AD/HD feel ignored and not heard

(Everett, A.A., and Volgy-Everett, S. (1999). Therapeutic Interventions for Adults with ADHD and their Families, Family Therapy for ADHD: Treating Children, Adolescents, and Adults. New York, NY Guilford, pp. 221-264.)

Vocational Counseling and AD/HD



Need skills and abilities goodness-of-fit!

(Murphy, K.R. (1998). Psychological Counseling of Adults with ADHD. In R.A. Barkley (Ed.), Attention Deficit Hyperactivity Disorder, Second Edition. New York, NY: Guilford, pp. 582-591.)

Vocational Counseling and AD/HD



Psychotherapists/vocational counselors should consider being client's advocate with their boss/employer when appropriate.

(Everett, A.A., and Volgy-Everett, S. (1999). Therapeutic Interventions for Adults with ADHD and their Families, Family Therapy for ADHD: Treating Children, Adolescents, and Adults. New York, NY Guilford, pp. 221-264.)

Vocational Counseling and AD/HD

“As ADHD children enter adulthood and take on full-time jobs that require skilled labor, independence of supervision, acceptance of responsibility, and periodic training in new knowledge or skills, their deficits in attention, impulse control, and regulating activity level as well as their poor organizational and self-control skills could begin to handicap them...

Vocational Counseling and AD/HD



The findings from the few outcome studies that have examined job functioning suggests this may be the case” (p. 208)

(Barkley, R.A. (1998). Attention Deficit Hyperactivity Disorder, Second Edition. New York, NY: Guilford.)

Vocational Counseling and AD/HD

AD/HD Adults:

- Have lower job ratings
- Have lower socioeconomic status
- Change jobs more frequently

(Barkley, R.A. (1998). Attention Deficit Hyperactivity Disorder, Second Edition. New York, NY: Guilford.)



Vocational Counseling and AD/HD

AD/HD Adults are:

- Rated lower by employers
- Don't work well independently
- Do poorly in job interviews
- Are more likely to be fired or laid off

(Barkley, R.A. (1998). Attention Deficit Hyperactivity Disorder, Second Edition. New York, NY: Guilford.)



Vocational Counseling and AD/HD

“The manifestations of attention deficits in adults are most widest in the workplace environment, for it is at work that the greatest demands for planning, memory, organization, teamwork, and precision are placed on us” (p. 308).

(Nadeau, K.G. (1995). ADD in the Workplace: Career Consultation and Counseling for the Adult with ADD. In K.G. Nadeau (Ed.), A Comprehensive Guide to Attention Deficit Disorder in Adults. New York , NY: Bruner/Mazel, pp. 308-226.)

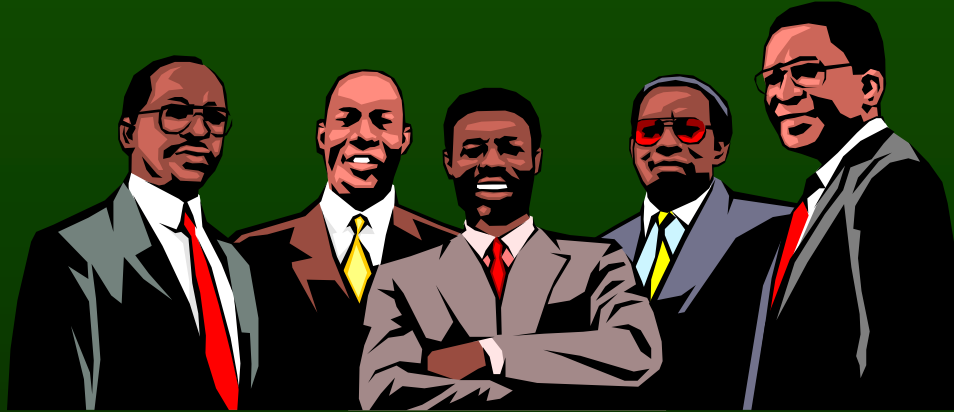
Vocational Counseling and AD/HD

Mid-Career Job Crisis with AD/HD:

- Don't let crisis situation discourage employability hopes
- When promoted to supervisor AD/HD symptoms became a problem

(Nadeau, K.G. (1995). ADD in the Workplace: Career Consultation and Counseling for the Adult with ADD. In K.G. Nadeau (Ed.), A Comprehensive Guide to Attention Deficit Disorder in Adults. New York , NY: Bruner//Mazel, pp. 308-226.)

Vocational Counseling and ADHD



“...some adults with ADD find themselves almost incapable of functioning well in a job that does not hold their interest” (p. 318).

(Nadeau, K.G. (1995). ADD in the Workplace: Career Consultation and Counseling for the Adult with ADD. In K.G.Nadeau (Ed.), A Comprehensive Guide to Attention Deficit Disorder in Adults. New York , NY: Bruner/Mazel, pp. 308-226.)

Vocational Counseling and AD/HD

“...the most important functions in career counseling with ADD/LD adults is to rebuild self confidence and self-esteem following their prolonged academic struggles and years of facing the prejudices of educators and employers” (p. 312).

(Nadeau, K.G. (1995). ADD in the Workplace: Career Consultation and Counseling for the Adult with ADD. In K.G. Nadeau (Ed.), A Comprehensive Guide to Attention Deficit Disorder in Adults. New York , NY: Bruner/Mazel, pp. 308-226.)

Vocational Counseling and AD/HD

“Sometimes the difficulty lies with the lack of organizational and communication skills of many people with ADD. In other cases, the need for constant stimulation leads those with ADD to feel bored and frustrated at work, and hence more likely to quit or fail to flourish in their position” (p. 115).

(Murphy, K.R., and LeVert, S. (1995). Out of the Fog: Treatment Options and Coping Strategies for Adult Attention Deficit Disorder. New York, NY: Hyperion.)

Vocational Counseling and AD/HD



Lack of education gets in the way of ADHD adults career wise. Usually the more 'exciting' jobs require better education.

(Murphy, K.R., and LeVert, S. (1995). Out of the Fog: Treatment Options and Coping Strategies for Adult Attention Deficit Disorder. New York, NY: Hyperion.)

Vocational Counseling and AD/HD

High-Risk, Fast-Paced Jobs:

- Sales
- Advertising
- Creative arts
- Entrepreneurship



(Murphy, K.R., and LeVert, S. (1995). Out of the Fog: Treatment Options and Coping Strategies for Adult Attention Deficit Disorder. New York, NY: Hyperion.)

Vocational Counseling and AD/HD

Roadblocks AD/HD Adults Have in Work:

- Pervasive feeling of underachievement
- Feeling lazy, stupid, irresponsible
- Feel overwhelmed with life
- Always feeling like a misfit
- Lack of self-esteem



(Sterns, S. (1995). Career Planning for Adults with Learning Disabilities and Attention Deficit Disorders. The Rebus Institute Report. 4 (1), pp. 1-2.)

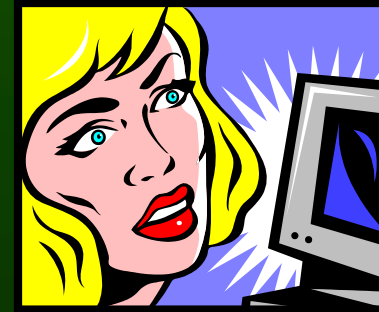
Vocational Counseling and AD/HD

Workplace Issues of AD/HD Adults:

1. Difficulty with transitions
2. Difficulty with time management
3. Difficulty with disorganization
4. Difficulty with self-image
5. Difficulty with others

Vocational Counseling and AD/HD

Workplace Issues (Continued):



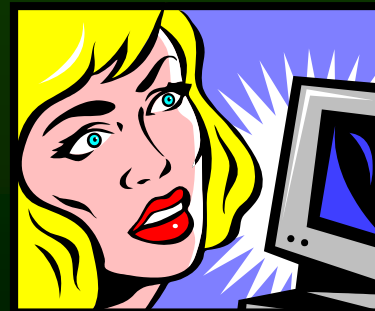
6. Lack of understanding of AD/HD
7. Inconsistency
8. Lack of self-management
9. Lack of self-advocacy
10. Lack of job life skills

(Ratey, N., and Griffith-Haynie, M. (1998). Coaching to Improve Workplace Performance. Paper presented at the Fourth Annual ADDA Adult ADD Conference, March 26-28, Washington, DC.)

Vocational Counseling and AD/HD

Things to Consider in AD/HD Career Eval. :

- Interests
- Personality type
- Areas of strength
- Areas of weakness
- Level of training



(Nadeau, K.G. (1997). Top 10 Traps in the Workplace: How to Avoid Getting Caught by them! Attention!, 3 (4), pp. 8-14.)

Vocational Counseling and AD/HD

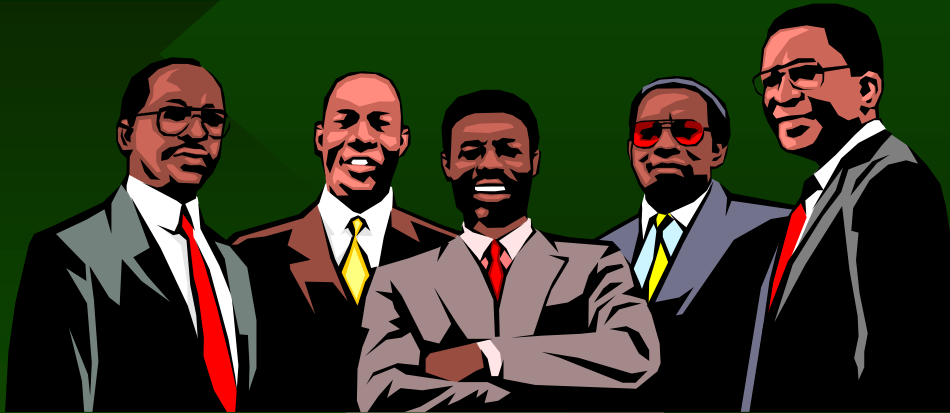
Alternative Work Choices for AD/HD:

- Telecommuting
- Home based sales
- Home based business
- Entrepreneur



(Nadeau, K.G. (1998). What to Do When Your Job is Just Not Working For You. Paper Presented at the Fourth Annual National ADDA Adult ADD Conference, Washington, DC, March 26-28.)

Vocational Counseling and AD/HD



Not every AD/HD person fits into the same job!

(Fellman, W. (1998). Career and Life Decisions with ADHD. Paper presented at the Fourth Annual National ADDA Conference, March 26-28, Washington, DC.)



Workplace Accommodations

“Reasonable accommodations for individuals with disabilities must be determined on a case-by-case basis because workplaces and jobs vary, as do people with disabilities. Accommodations for individuals with psychiatric disabilities may involve changes to the workplace policies, procedures, or practices. Physical changes to the workplace...

Workplace Accommodations



or extra equipment also may be effective reasonable accommodations for some people” (p. 39).

(Latham, P.H., and Latham, J.D. (1997). Equal Employment Opportunity Commission Issue New Guidance on Psychiatric Disabilities and the ADA. *Attention!*, 4 (2), pp. 38-40.)

Workplace Accommodations



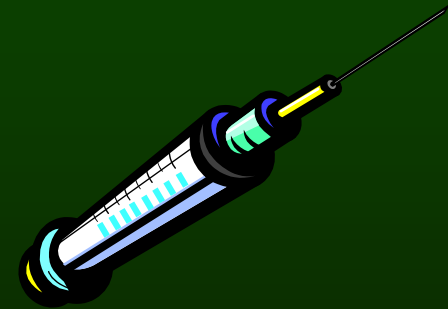
Types of Accommodations in The Workplace:

- Accommodations provided by the employer
- Strategies to reduce AD/HD symptoms
- Professional assistance – AD/HD coach, etc.

(Latham, P.H., and Latham, J.D. (1997). Equal Employment Opportunity Commission Issue New Guidance on Psychiatric Disabilities and the ADA. *Attention!*, 4 (2), pp. 38-40.)

Workplace Accommodations

1. More accountability to others
2. Shorter term goals
3. Externalize time
4. Report many times a day on tasks
5. Medication (Drug Screening issue, too)



(Barkley, R. A., (2002). Mental and Medical Outcomes of AD/HD. Paper presented at the 14th Annual CHADD International Conference, October 17-19, Miami Beach, FL.)

Workplace Accommodations

- Job Accommodations Network

P. O. Box 6080

Morgantown, WV 26506-6080

Voice/TTY (in US): 1-800-526-7234

Voice/TTY (Worldwide): 1-304-293-7186

Fax: 1-304-293-5407

E-mail: jan@jan.icdi.wvu.edu

Web: www.jan.wvu.edu/english/

Workplace Accommodations

National Center for Law and Disabilities

P.O. Box 972

Cabin John, MD 20818

Phone: 301-469-8308

Fax: 301-469-9466

Workplace Accommodations

President's Committee on the Employment of
People with Disabilities

1331 F Street NW

Washington, DC 20004-1107

Phone: 202-376-6200

Fax: 202-376-6293

Workplace Accommodations

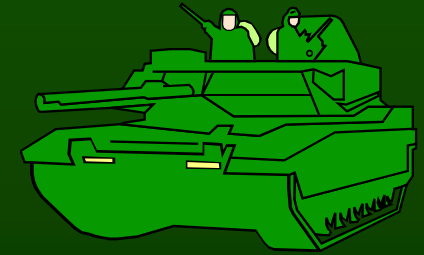
U.S. Equal Employment Opportunity
Commission

1801 L Street, NW

Washington, DC 20507

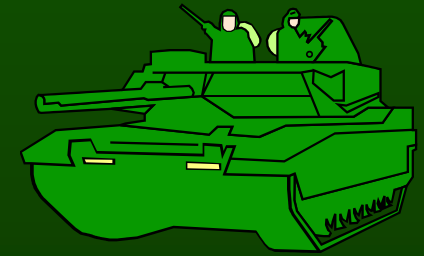
Phone: 800-669-EEOC

Military Service and AD/HD



“Many individuals with learning disabilities or ADD join the Armed Forces and report that the structure and clear expectations help them to do well...The Armed Forces are not required to grant accommodations, such as extended time, on the qualifying test...”

Military Service and AD/HD



Further, military regulations provide that academic skills that interfere with school or work after age 12 may be a cause for rejection for service in the Armed Forces. These regulations also provide that current use of medication, such as Ritalin or Dexedrine, to improve academic skills is disqualifying for military service” (Latham, 1998).

(Latham, P.H. (1998). Learning Disabilities and the Law –After High School: An Overview for Students.LDA Newsbriefs, 33 (4), pp. 3-4.)

AD/HD Coaching

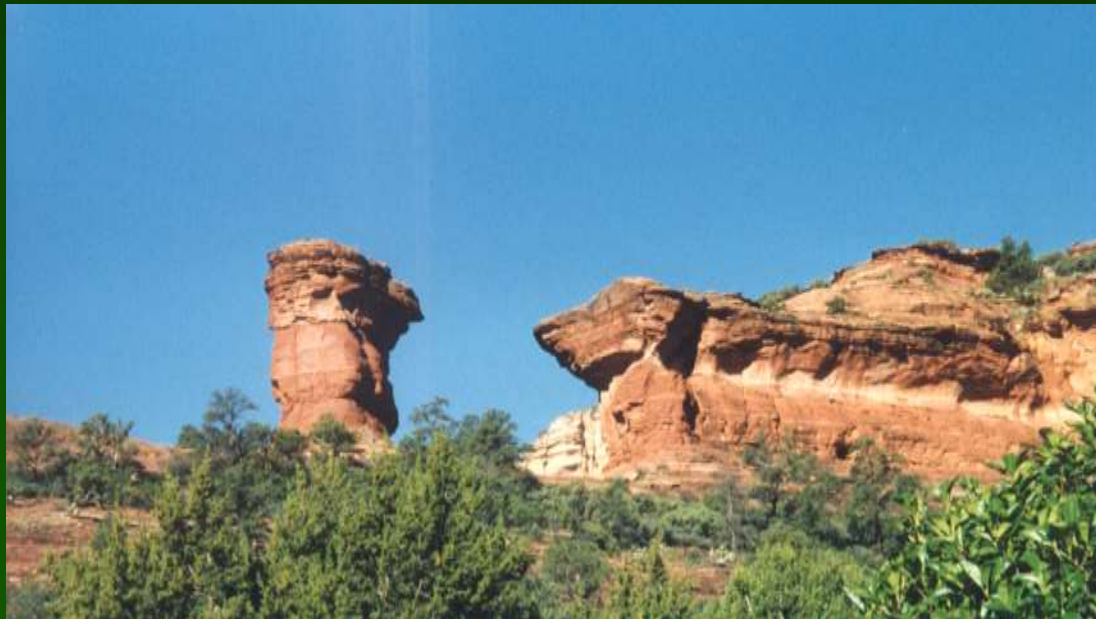


AD/HD Coaching

No science to back it up.



(Murphy, K.R. (1998). Psychological Counseling of Adults with ADHD. In R.A. Barkley (Ed.), Attention Deficit Hyperactivity Disorder, Second Edition. New York, NY: Guilford, pp. 582-591.)



AD/HD Coaching



“Coaching is a supportive, pragmatic, and collaborative process in which the coach and adult with ADHD work together via daily 10-to-15 minute telephone conversations to identify goals and strategies to meet those goals” (p. 590).

(Murphy, K.R. (1998). Psychological Counseling of Adults with ADHD. In R.A. Barkley (Ed.), Attention Deficit Hyperactivity Disorder, Second Edition. New York, NY: Guilford, pp. 582-591.)

AD/HD Coaching



WHAT DOES AN AD/HD COACH DO?

- “1. Help people set better goals and then reach goals
2. Ask their clients to do more than they would have on their own.
3. Focus their clients better to more quickly produce results.
4. Provide the tools, support and structure to accomplish more.

AD/HD Coaching



AD/HD COACHING (CONTINUED)

5. Help clients re-build self-esteem and recover from a lifetime of doubt.
 - * Through shared understanding of the implications of the client's ADD issues and the development of strategies and systems to get things done despite ADD challenges.
 - * Through understanding of the client's best learning styles, dominant and preferred modalities and how to use them to their advantage.
 - * Through the implementation of a structure and gentle reminders of the client's shared goals and objectives.

AD/HD Coaching



ADHD COACHING (CONTINUED)

6. Help the clients learn to manage their ADD affect and be better self-managers.

- * Help the clients develop anger and mood management specifics.
- * Help the clients learn how to self-monitor and document performance and medications for their appointments with doctors.

7. Help the clients learn how to self-advocate” (p. 3).

(Ratey, N., and Griffith-Haynie, M. (1998). Coaching to Improve Workplace Performance. Paper presented at the Fourth Annual ADDA Conference, March 26-28, Washington, DC.)

AD/HD Coaching



“ADD coaching can be used in conjunction with other services, professional treatments and self-help efforts clients may be pursuing. A coach can work as a team member with other professionals in establishing a service package for individuals with ADD. In using the co-engineering of environments and relationships that are ‘user friendly’ and that will help them take action and achieve goals”

(Ratey, N.A., and Snowman, S.R. (1998). Coaching for Adults with ADHD. Paper presented at the Ninth Annual CHADD International Conference, San Antonio, TX, October 24.)

AD/HD Coaching



“The therapist who makes a referral to a coach or organizer needs to be well-acquainted with the coach’s methods of working, especially if they are going to be working collaboratively with the same client” (P. 260).

(Nadeau, K. (2002). Working with Coaches and Professional Organizers. In P.O. Quinn and K.R. Nadeau (Eds.), Gender Issues and AD/HD: Research, Diagnosis and Treatment. Silver Spring, MD:Advantage, pp. 255-267.)

AD/HD Coaching



Temporary job coaches are considered a reasonable accommodation by the EEOC.

(Latham, P.H., and Latham, J.D. (Fall, 1997). Equal Employment Opportunity Commission Issue new Guidance on Psychiatric Disabilities and the ADA. Attention!, 4 (2), pp. 38-40.)

AD/HD Coaching



1. American Coaching Association, Susan Sussman, M.Ed., P.O. Box 353, Lafayette Hill, PA 19444; 610-825-4505; www.americoach.com
2. ADD Brain Works, Nancy Ratey, Ed.M., 264 Grove Street, Wellesley, MA 02181; 617-237-3508; www.addbrain.com

Professional Organizers and AD/HD



“Generally speaking a professional organizer differs from a coach by providing on-site, hands-on help with organizing. Typically, the primary focus is on helping a client to organize her environment, rather than teaching her how to remain organized” (p. 256).

(Nadeau, K. (2002). Working with Coaches and Professional Organizers. In P.O. Quinn and K.R. Nadeau (Eds.), Gender Issues and AD/HD: Research, Diagnosis and Treatment. Silver Spring, MD:Advantage, pp. 255-267.)

Professional Organizers and AD/HD



National Association of Professional
Organizers (NAPO)

35 Technology Parkway South, Suite 150

Norcross, Georgia 30092

770-325-3440

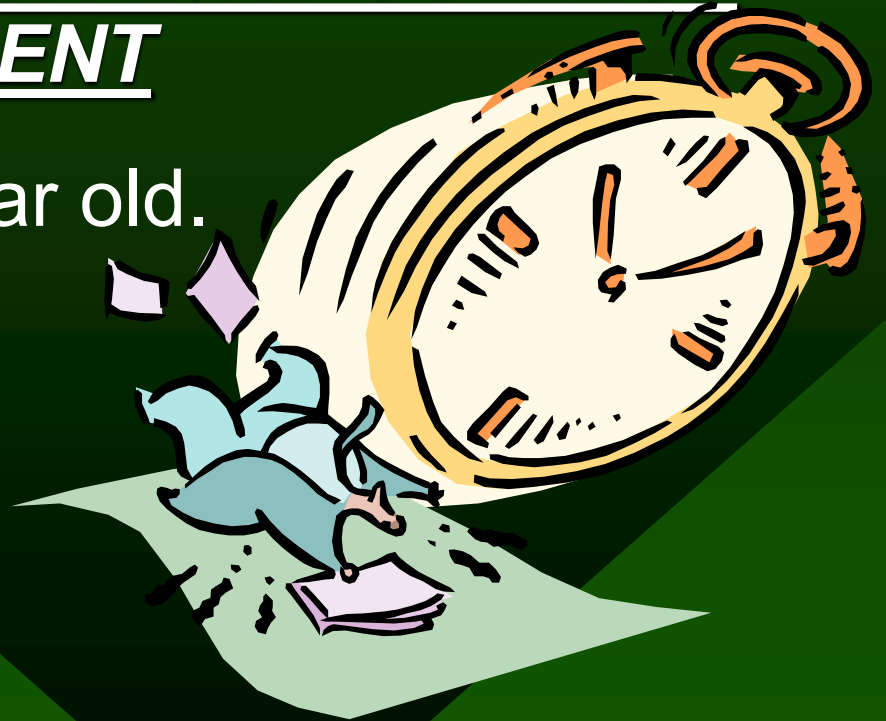
www.napo.net

Academic Accommodations and AD/HD

WHAT TO DO WITH AN AD/HD COLLEGE STUDENT

“Treat them like a 13 year old.

1. SMALLER CLASSES
2. Fewer Classes
3. Hand pick faculty



Academic Accommodations and AD/HD

COLLEGE ACCOMMODATIONS (CONTINUED)

4. More curricular materials like videos and handouts
5. Studying with older student who already took the course perhaps
6. Taking five years to complete a B.A. rather than four”.

(Barkley, R.A. (2002A-Tape 2). ADHD Symposium: Comorbid Disorders, Etiologies, and Outcomes. University of Massachusetts, January, Distributed by Stonebridge Seminars, 2 Okie Stonebridge Path, Westborough, MA 01581.)

Academic Accommodations and AD/HD

College Accommodations for AD/HD

1. Formal Tutoring
2. Attending all faculty extra help sessions
3. Taking a time management seminar
4. Taking advantage of disability support services
5. Individual psychotherapy

Academic Accommodations and AD/HD

College Accommodations (Continued)

6. Alternative method exams
7. Get an AD/HD coach
8. Ask faculty to post assignments weekly on website
9. Get a substance-free dorm
10. Career counseling several years before graduation

(Barkley, R.A. (2002). AD/HD and Oppositional Defiant Children. Seminar presented February 19-20, Phoenix, AZ, The Institute for Continuing Education, Fairhope, AL.)

Academic Accommodations and AD/HD



EXTENDED TIME AND DISTRACTION *REDUCED ENVIRONMENT*

Extended time for examinations has become controversial for AD/HD college students. Research has been confounded regarding this. A distraction reduced environment may be helpful.

Academic Accommodations and AD/HD



“...that those with AD/HD are more likely than others to see themselves as distractible and better able to perform in quieter environments. The data suggests that providing a separate testing room may be a more appropriate accommodation for a majority of those with ADHD than extra time...It is inappropriate to assume that someone needs a particular accommodation, or should be entitled to a particular accommodation simply on the basis of a diagnostic label...

Academic Accommodations and AD/HD

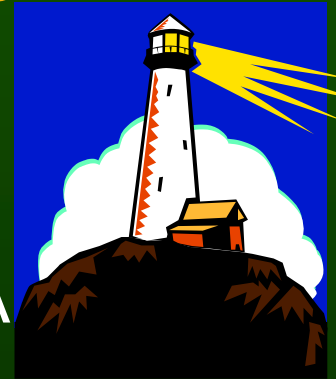


To justify eligibility for accommodations, it is crucial to provide a defensible rationale that convincingly relates to the history of impairment” (p. 4).

(Gordon, M., and Murphy, K. (June, 2001). Judging the Impact of Time Limits and Distractions on Past Performance: A Survey of ADHD, Clinic Referred, and Normal Adults. ADHD Report, 9 (3), pp. 1-5.)

Academic Accommodations and AD/HD

EXTENDED TIME



1. Probably most used accommodation under ADA
2. Good for slow processing speed and poor working memory
3. Also good for problems with reading comprehension when rereading is necessitated.
4. Good when speed is not a prerequisite

Brown, T.E. (2000). Psychosocial interventions for Attention-Deficit Disorders and Comorbid Conditions. In T.E. Brown (Ed.), Attention-Deficit Disorders and Comorbidities In Children, Adolescents, and Adults. Washington, DC: American Psychiatric Press, pp. 537-568.)

Academic Accommodations and AD/HD



Extended Time

Flagging of extended timed SATs stopped, but College Board president said, “we must ensure that extended time test-taking is not granted to students who do not require this accommodation” (p. 24)

(Mulls, C. (January/February, 2003). Faking It: Using Learning Disabilities to Boost SAT Scores. Psychology Today, 36 (1), p. 24.)

Academic Accommodations and AD/HD



Extended Time

1. The ACT, SAT, GRE, etc. are speeded
2. In England all students get as much time as they need.

(Ofiesh, N. (November 1, 2002). Learning Disabilities & Extended Time: An Everlasting Marriage.... Paper presented at the First Annual SALT Conference, University of Arizona, Tucson, AZ.)

Accommodations for Those with AD/HD

- Good resources to help decide which accommodations work with which weaknesses:
 - Brinkerhoff, L.C., McGuire, J.M., and Shaw, S. (2002). Postsecondary Education and Transition for Students with Learning Disabilities (Second Edition). Austin, TX: Pro-ED.
 - Mather, N. and Jaffe, L.E. (2002). Woodcock-Johnson-III: Reports, Recommendations, and Strategies. New York, NY: John Wiley and Sons.

Social Interaction and AD/HD



“...traditional psychologists and neurologists have been slow to acknowledge that social behavior is at least in part a brain function just like memory or language” (p. 296).

(Ratey, J.J. (2001). A User's Guide to the Brain: Perception, Attention, and the Four Theaters of the Brain. New York, NY: Vintage.)

Social Interaction and AD/HD

Human Neurological Systems Involved with

Social Abilities:

1. Frontal-subcortical systems – emotional facial and gestural expression.
2. ***Temporal lobe neurons – identification of faces and facial affective expressions***

Social Interaction and AD/HD

3. Neurons of the superior temporal sulcus – sensitive to gaze
4. Left temporal lobe – pitch and rate of speech (prosody), phonemics, syntax of language
5. Prefrontal lobe – social systems congruence checker

(Voller, K.K.K. (1995). Clinical Neurological Aspects of the Right-Hemisphere Deficit Syndrome. Journal of Child Neurology, 108 (3), pp. 185-212.)

Social Interaction and AD/HD



“AD/HD kids are not ‘clueless, they’re cueless”
(Goldstein, 1998).

(Goldstein, S. (November 20, 1998). Pathways to Success: Evening the Odds in the Treatment of Attention-Deficit Hyperactivity Disorder. Seminar presented in Tucson, AZ.)

Social Interaction and AD/HD

1. Kids with AD/HD typically have good social skills; however, they are too impulsive due to their AD/HD, and fail to use them when appropriate.
2. AD/HD and ODD kids may lack social skills and need training.
3. Teach social skills at the point of performance.

(Barkley, R.A. (2002). Mental and Medical Outcomes of AD/HD. Paper presented at the 14th Annual CHADD International Conference, October 17, Miami Beach, FL.)

Social Interaction and AD/HD



AD/HD girls have problems with listening, controlling emotions and anger, and appear harsh and uncaring. This is less culturally acceptable in girls. As a result they suffer socially.

(Geler, J.Z. (September/October, 2000). Are girls with ADHD Socially Adept? ADDvance, pp 16-18.)

Social Interaction and AD/HD



AD/HD individuals are less adept at interpreting the emotions of others and identifying their own emotions than are the non-disabled.

(Brown, T.E. (2001). Social Ineptness & “Emotional Intelligence” in ADHD. Paper presented at the 13th Annual CHADD International Conference, October 18-20, Anaheim, CA.)

Social Interaction and AD/HD

- AD/HD adults have deficits in their ability to identify facial expressions in others.
- AD/HD adults experience emotions more intensely.
- The more intense the emotion the worse they are at identifying facial expressions.

((February, 2003). ADHD Related to Impaired Emotion Recognition: Increased Experienced Emotion in Adults. ADHD Report, 11, pp. 10-11/ Summary of: Rapport, L.J., et.al. (2002). Experienced Emotion and Affect Recognition In Adult Attention-Deficit/Hyperactivity Disorder. Neurology, 16, pp.102-110.)

Social Interaction and AD/HD

AD/HD individuals over-emote facial expressions. When medicated properly this is corrected. It is dose dependent. Even the AD/HD individuals say they emote what they want to when they see videos of themselves medicated.

(Kuehle, H.J., Hoch, C., and Jansen, F. (October 17, 2002). Video Assisted Observation of Visual Attention, Facial Expression of the Individual Stimulant Dosage. Poster session 14th Annual CHADD International Conference, Miami Beach, FL)

Technology and AD/HD

1. The Motivator – pager sized vibrator/
reminder
2. Watchminder Watch – Up 70 reminders

(A.D.D. Warehouse, 300 Northwest 70th Avenue Suite #102,
Plantation, FL; 800-233-9273; www.addwarehouse.com)

Technology and AD/HD

3. Digital organizers
4. Word processors
5. Small tape recorders
6. Paging services
7. Mirrors
8. Color Coding

AD/HD Organizations

Children and Adults with Attention Deficit Disorders (CHADD)

8181 Professional Place, Suite 150

Landover, MD 20785

301-306-7070

www.chadd.org

AD/HD Organizations

National Attention Deficit Disorder Association
(ADDA)

1788 Second Street, Suite 200

Highland Park, IL 60035

847-4322332

www.add.org

AD/HD Organizations

Learning Disabilities Association of America (LDA)

4156 Library Road

Pittsburgh, PA 15234

412-341-1515

www.ldanatl.org

All good things must come to the end.

- We are at the end of the seminar.
- We will have 15 minutes of questions and answers.
- I will stay a little longer if there is a need.



Thank You for Attending!



- Have a safe trip home!
- Kevin T. Blake, Ph.D.,
P.L.C.

520-327-7002

kblake@theriver.com