The Controversy of Adult AD/HD and Dyslexia: Real Answers and Solutions for Therapists

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

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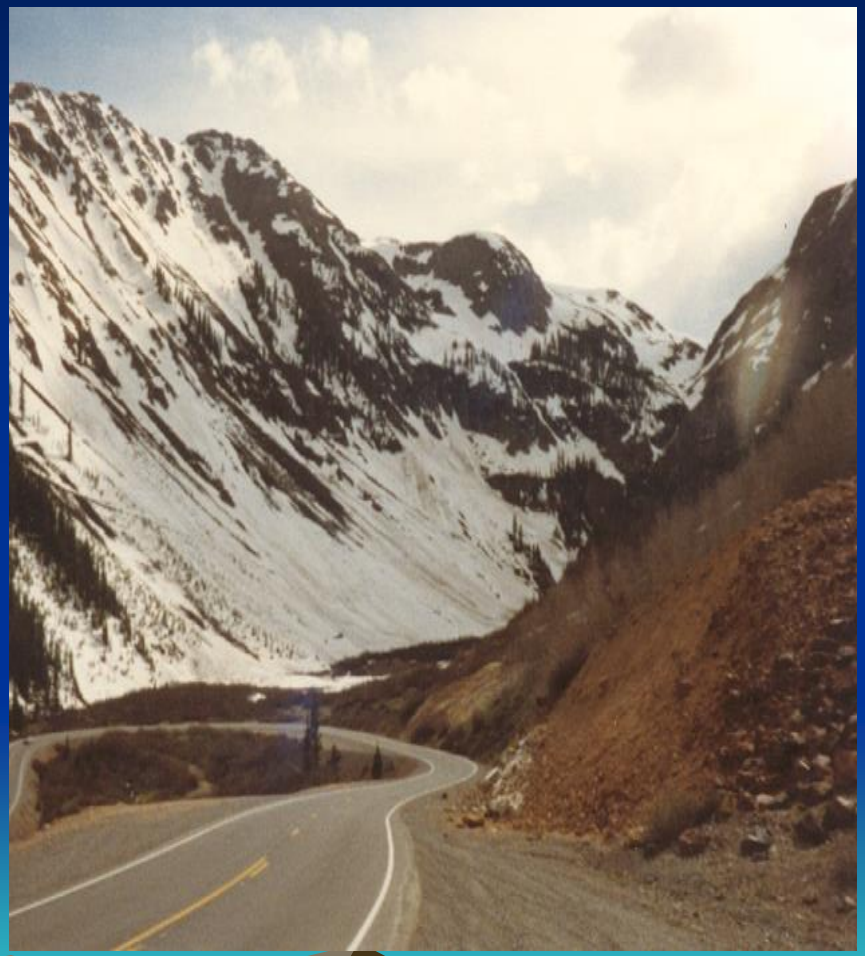
University of Phoenix: Tucson, AZ

Sponsored by:

Jewish Family & Children's Service of Southern Arizona, Inc.

Road Rules: What to expect

- Today's seminar will run from 9:05 to 3:50.
- Lunch will be "on your own" from 12:00 to 1:05.
- Breaks will be 15 minutes at 10:30 and 2:30.
- Please try to hold your questions until Q & A times.



What is “State of the Art”?

- What you have in you PowerPoint handouts may not exactly match mine because something new may have come out since your handouts have been printed. Oh, by the way these bicycles ***ARE NOT*** state of the art.

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 "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 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 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 neuroanonomy, 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?

- 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.)

- "Although learning disabilities may be exacerbated by other variables, such as ineffective teaching strategies or socioeconomic barriers, this paper supports the position that the essence of learning disabilities is neurobiological in nature" (p. 61).

  (Fiedorowicz, C., et.al. (2001). Neurobiological Basis of Learning Disabilities. Learning Disabilities, 11 (2), pp. 61-74.)

What Does Neurobiological Mean? (Continued)

"Of particular relevance to this review is the compelling evidence in support of the neurobiological basis of learning disabilities. Studies employing widely divergent methodologies, e.g. research using genetic analysis, neuroanatomical neuroimaging, electrophysiological recording, pathological analysis of brain tissue at autopsy, and neuropsychological evaluation have yielded highly convergent conclusions in support of a neurobiological etiology" (p. 70).

(Fiedorowicz, C., et.al. (2001). Neurobiological Basis of Learning Disabilities. Learning Disabilities, 11 (2), pp. 61-74.)

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 the “Dismal Four”?

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

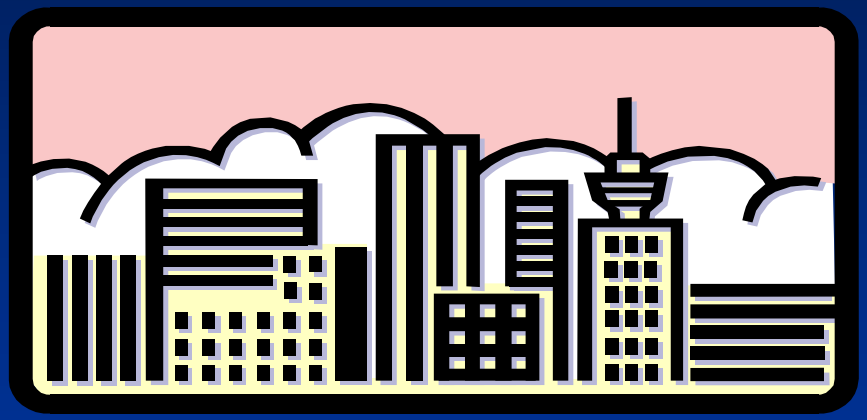
(American Psychiatric Association, 2000 Washington, DC: American Psychiatric Association)

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

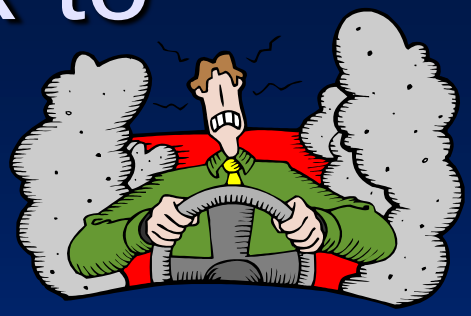
Change the cut DSM-IV, TR cutoffs for AD/HD adults by age:

- (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.)

COULD IT BE RISK TAKING BEHAVIOR?

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.)

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)

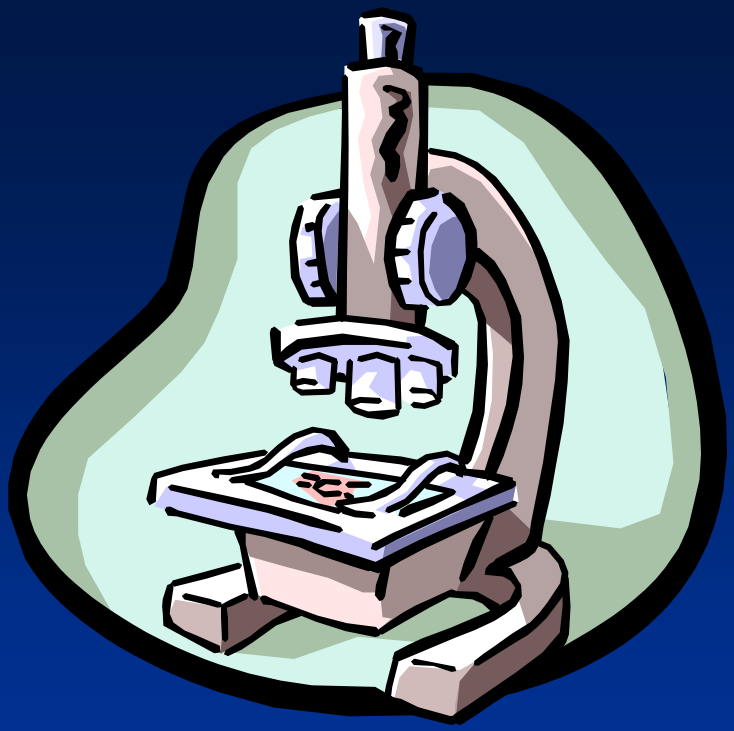
    (Grandin, T. Thinking in Pictures: And Other Reports From My Life With Autism. New York, NY: Vintage Books.)

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.)

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***

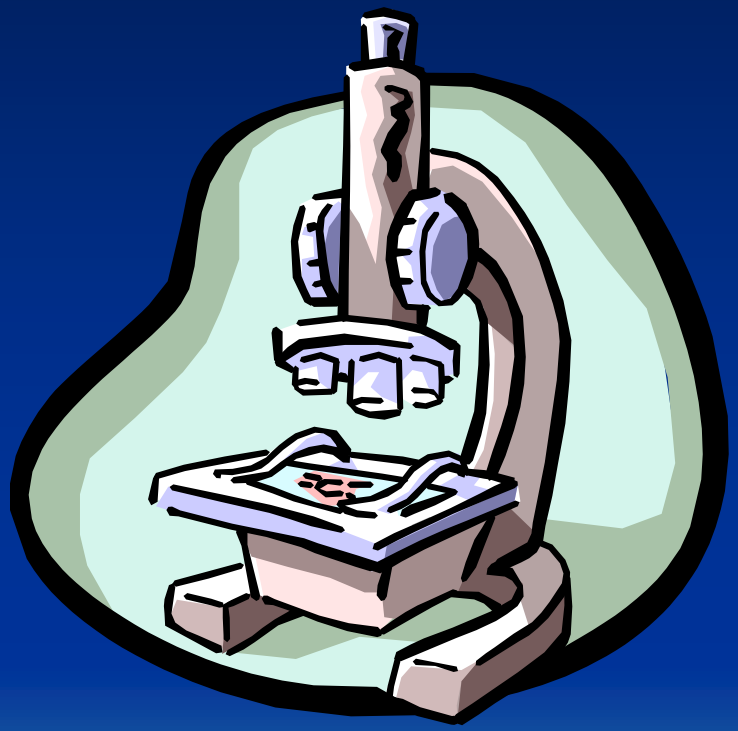
Brown's Theory (Continued)

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.)

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.)

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.)

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..)

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.)

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://addbalance.com/add/nih/19981118c.htm, pp.)

What About Neuroinaging of Combined Type AD/HD?

1990 NIH 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.)

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.

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.)

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 Subtypes of ADHD.ADHD Report,, 9 (1), pp. 2-5.)

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. (2202). 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 form 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.)

The Genetics of the Inattentive Type

- Brown believes it is a genetically separate and distinct disorder form 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 heritable.

(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

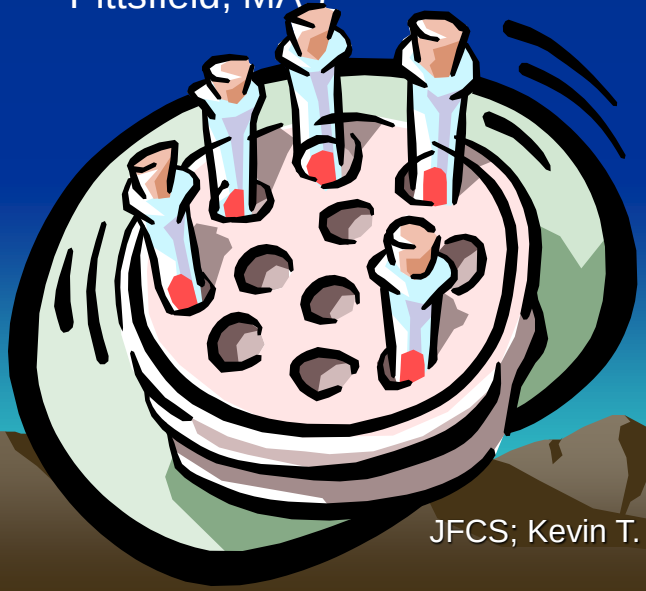
Barkley speculated, "…ADD-H may involve posterior associative cortical areas and/or cortical-subcortical feedback loops, perhaps involving the hippocampal system" (p. 89)

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

Neurochemistry of Inattentive ADHD

Barkley speculated there is a problems 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)

- 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 female 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.)

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).

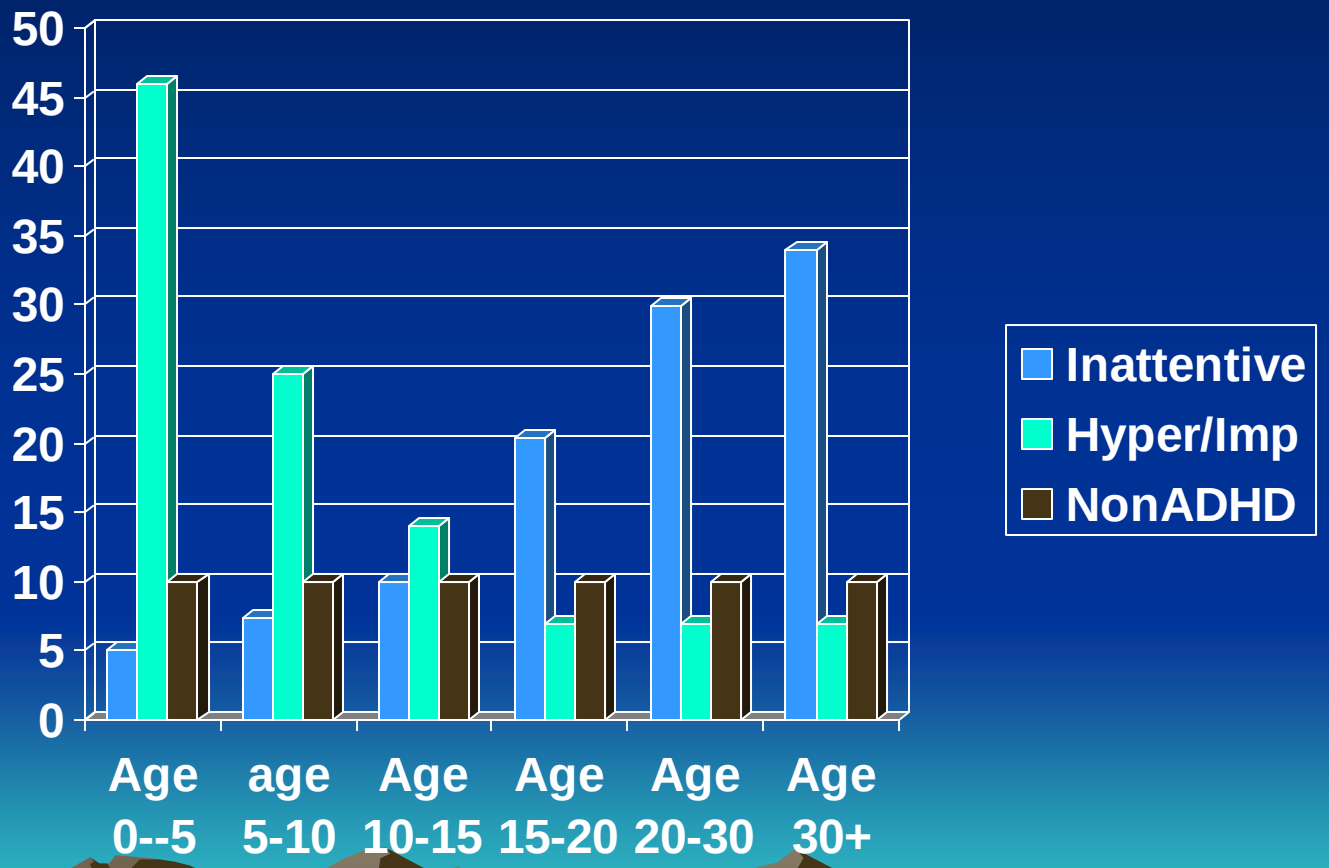
Brown, T.E. (2000). Emerging Understandings of Attention-Deficit Disorders and Comorbidities. In T.E. Brown (Ed.), Attention-Deficit Disorders and Comorbidities in Children, Adolescents, and Adults. Washington, DC: American Psychiatric Press, pp. 3-55.)

Brown (Continued)

Brown 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?


50
45
40
35
30
25
20
15
10
5
0
Age 0--5
age 5-10
Age 10-15
Age 15-20
Age 20-30
Age 30+
Inattentive
Hyper/Imp
NonADHD

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 (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 insure 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.)

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.)

Kevin: Give These People a Break!

Please be back promptly in 15 minutes.

Thank You!

Welcome back! Lets get going!

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

"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.)

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

Barkley believes it is a valid diagnosis that occurs 1 in 5. These people he believes 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.)

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**

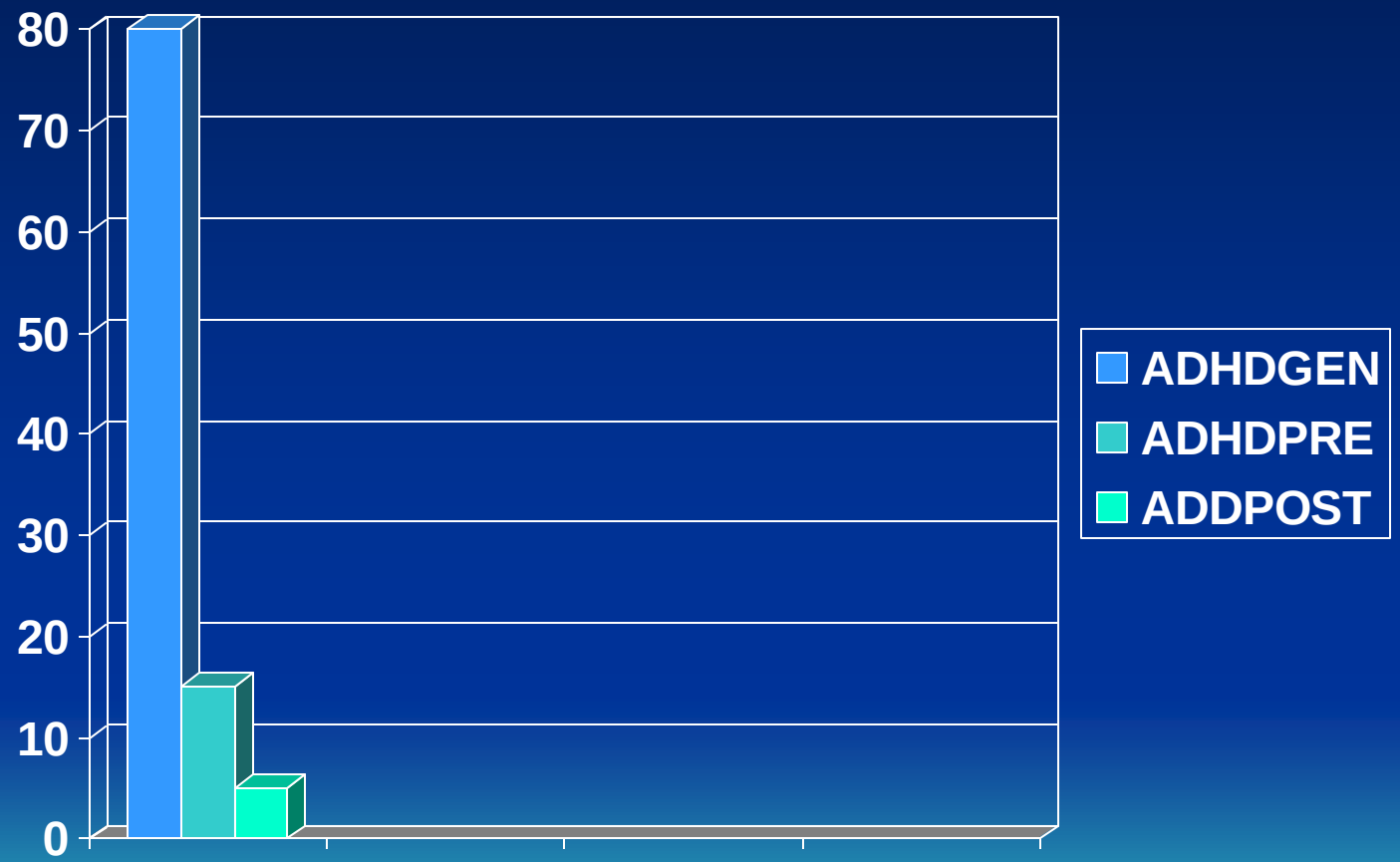
(Barkley, R.A. (2002B). ADHD in Oppositional Defiant Children. Seminar Presented, February 19-20, Phoenix, AZ, The Institute for Continuing Education, Fairhope, AL.)

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%).
- Acquired ***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.)

European Perspectives of AD/HD

Disorder of Attention Motor Control and Perception (DAMP):

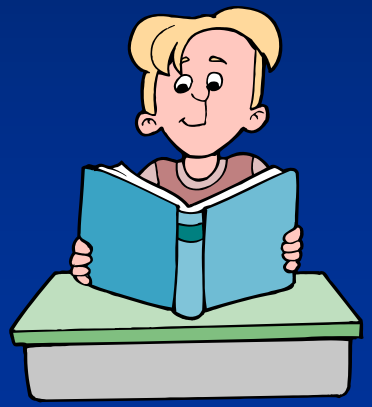
Swedish researchers have been doing longitudinal research since 1977 with a group of children with AD/HD and Developmental Coordination Disorder which they view as one disorder called DAMP. At age 22 30% of the children still met criteria for AD/HD and DCD.

(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.)

THE CONTROVERSY OF ADULT AD/HD AND DYSLEXIA: REAL ANSWERS AND SOLUTIONS FOR THERAPISTS

Although 5 percent of our adult population suffers from AD/HD, a neurobiological disorder first recognized in 1902, there continues to be controversies, misunderstandings and myths about this disorder and its treatment. As a result, many adults with AD/HD struggle with chronic difficulties in relationships and in school and in work settings. Without proper treatment, they are at risk for school failure and drop out, career failure, failed marriages, anxiety disorders, affective disorders and substance abuse.



What is the Readability Level of Those Passages?

- Flesch-Kinaid Grade Level=12.0
- The Readability of the New York Times is 13th to 16th grade

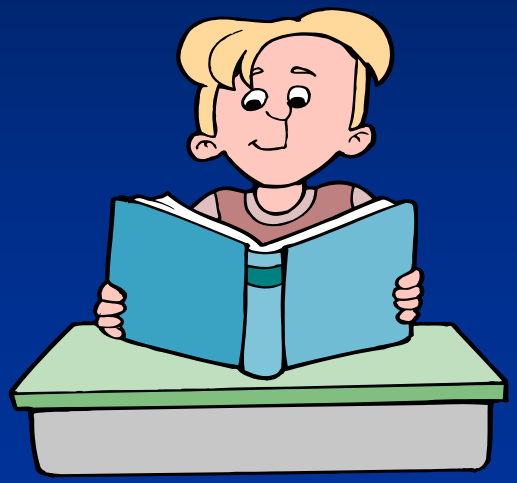
WriteItNow (3/12/04). From website: www.ravensheadservices.com/readability.htm, p. 3.

- Reader's Digest: 9th grade

The English Language Learner KnowledgeBase (3/12/04). From website: www.helpforschools.com/ELLK Base/practitionerships/Fog_Index_Readability.shtml .

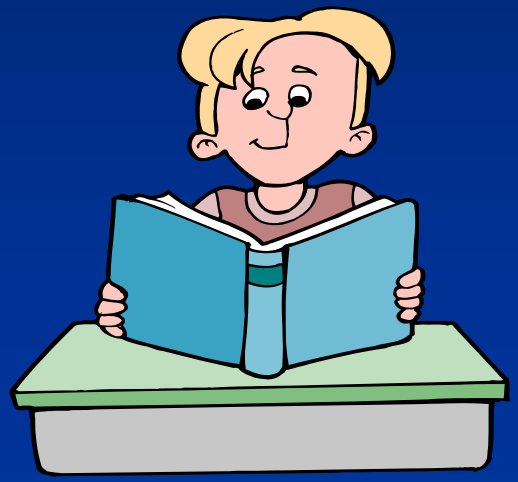
- 1 in 5 Americans reads below the 5th grade level and the average American reads at the 8th grade level!

Pfizer Clear Health Communication Initiative (3/12/04). Improving Health Literacy. From website: www.pfizerhealthliteracy.com_fry.html



Readability (continued)

- Could you be ***"Eulexic"***?
  - Margaret Rawson



What is a Learning Disability?

- “Specific learning disability means a disorder in one or more of the basic psychological processes involved in understanding or in using language spoken or written, which may manifest itself in an imperfect ability to listen, think, speak, read, write, spell, or do mathematical calculations. The term includes such conditions as perceptual handicaps, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia…

What is a Learning Disability? (Continued)

…The term does not include children who have learning problems which are the primary result of visual, hearing, or motor handicaps, or mental retardation, of economic disturbance, or of environmental, cultural, or economic disadvantage."

(Department of Health, Education, and Welfare, December 29, 1977, p. 65083.)

What is a Learning Disorder? (Continued)

"Learning disabilities is a generic term that refers to a heterogeneous group of disorders manifested by significant difficulties in the acquisition and use of listening, speaking, reading, writing, reasoning, or mathematical abilities, or of social skills. These disorders are intrinsic to the individual and presumed to be due to central nervous system dysfunction. Even though a learning disability may occur concomitantly with other handicapping conditions …

What is a Learning Disorder? (Continued)

…(e.g., cultural differences, insufficient or inappropriate instruction, psychogenic factors), and especially attention deficit disorder, all of which may cause learning problems, a learning disability is not the direct result of those conditions or influences."

(Interagency Committee On Learning Disabilities, 1997, p. 222; Adopted by the LEAD 2000 Congress, January 28, 1991, Little Rock, AR.)

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)

What is a Learning Disorder? (Continued)

"Learning Disorders are diagnosed when the individual's achievement on individually administered standardized tests in reading, mathematics, or written expression is substantially below that expected for age, schooling, and level of intelligence. The learning problems significantly interfere with academic achievement or activities of daily living that require reading, mathematical, or writing skills. A variety of statistical approaches…

What is a Learning Disorder (Continued)?

…can be used to establish that a discrepancy is significant. *Substantially below* is usually defined as a discrepancy of more than 2 standard deviations between achievement and IQ. A smaller discrepancy between achievement and IQ (i.e., Between 1 and 2 standard deviations) is sometimes used in cases where an individual's performance on an IQ test may have been compromised by an associated disorder in cognitive processing, a comorbid mental disorder or general medical condition, or individual's ethnic background…"

What is a Learning Disorder? (Continued)

"…If a sensory deficit is present the learning difficulties must be in excess of those usually associated with the deficit. Learning Disorders may persist into adulthood" (pp. 49-50).

(American Psychiatric Association (2000). Diagnostic and Statistical Manual of Mental Disorders—Text Revision (DSM-TR). Washington, DC: American Psychiatric Association.)

What is a Learning Disability? (Continued)

Civil Rights Definition

1. Section 504
2. ADA
3. Sutton vs. United Airlines

What is a Learning Disability? (Continued)

Civil Rights Definition (Continued)

1. You must be disabled compared to the "Average American" (i.e., I.Q.=100, etc.)
2. ***ADA is Civil Rights law, NOT entitlement law***
3. "…the Supreme Court has ruled that individuals with impairments, including ADD, learning disabilities and psychiatric disabilities are…

What is a Learning Disability? (Continued)

…excluded from coverage under ADA, if medication or compensatory strategies largely eliminate the impact of those impairments."

(Latham, P.S. , and Latham, P. (Friday October 8, 1999). Personal Communication. Washington, D.C., 11th Annual CHADD International Conference.)

(Latham, P.H. and Latham, P. (1999). Who has a disability Under ADA? Attention!, 6 (2), pp. 40-42.)

What is a Reading Disorder?

DSM-IV, TR

“Diagnostic criteria for 315.00 Reading Disorder

a. Reading achievement, as measured by individually administered standardized tests of reading accuracy or comprehension, is substantially below that expected given the person’s chronological age, measured intelligence and age-appropriate education.

What is a Reading Disorder? (Continued)

b. The disturbance in Criterion A significantly interferes with academic achievement or activities of daily living that require reading skills.

c. If sensory deficit is present, the reading difficulties are in excess of those usually associated with it" (p. 53).

(American Psychiatric Association (2000). Diagnostic and Statistical Manual of Mental Disorders—Text Revision (DSM-TR). Washington, DC: American Psychiatric Association.)

What is a Reading Disorder? (Continued)

"Dyslexia is one of several distinct learning disabilities. It is a specific language-based disorder of constitutional origin characterized by difficulties in single word decoding, usually reflecting insufficient phonological processing abilities. These difficulties in single word decoding are often unexpected in relation to age and other cognitive and academic abilities; Dyslexia is manifested by variable difficulty with different…

What is a Reading Disorder? (Continued)

…..forms of language, often including, in addition to problems in reading, a conspicuous problem with acquiring proficiency in writing and spelling".

(Definition of Dyslexia as adopted by the Research Committee of the International Dyslexia Association, May 11, 1994 and by the National Institutes of Health, 1994- taken from IDA website:www.interdys.org on July 8, 2002.)

What is Dyslexia?

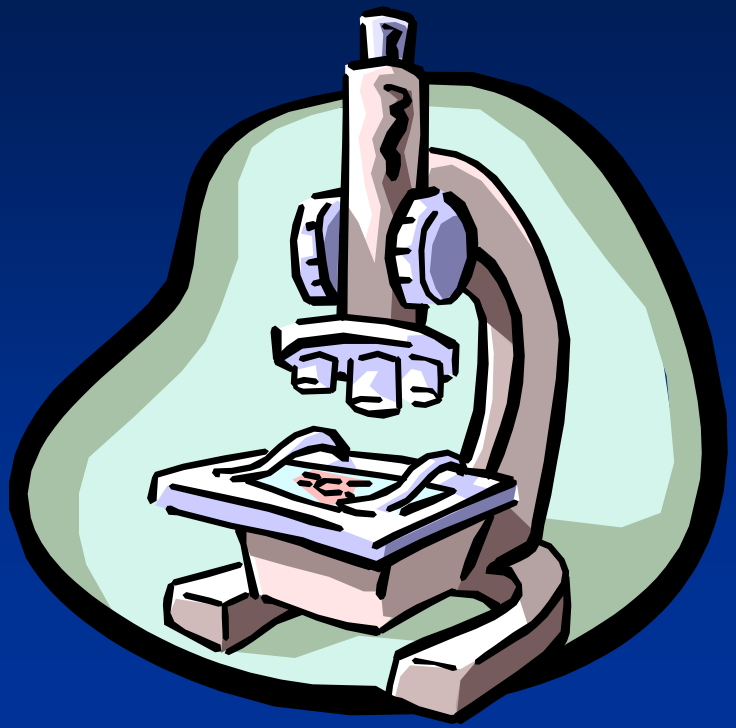
"Dyslexia is a specific learning disability that is neurobiological in origin. It is characterized by difficulties with accurate and/or fluent word recognition and by poor spelling and decoding abilities. These difficulties typically result from a deficit in the phonological component of language that is often unexpected in relation to other cognitive abilities and the provision of effective classroom instruction. Secondary consequences may include problems in reading comprehension and reduced reading…"

What is Dyslexia (Continued)?

"…experience that can impede growth of vocabulary and background knowledge" (Lyon, Shaywitz and Shaywitz, 2003, p. 2).

Lyon, G.R., Shaywitz, S.E., Shaywitz, B.A. (2003). A Definition of Dyslexia. Annals of Dyslexia, 53, pp. 2-14.

Your Tax Dollars at Work



RESEARCH PROGRAM IN READING DEVELOPMENT, READING DISORDERS, AND READING INSTRUCTION

Initiated 1965

Your Tax Dollars at Work

- Run by the National Institute of Child Health and Development (NICHD)
- Which is part of the National Institute of Health (NIH)
- Study began in 1965 and continues today!
- As of 1999 over ***$150,000,000.00*** has been spent!
- As of 1999 over 34,000 people in study!
- 12,600 dyslexic children; 9,000 dyslexic adults!

Your Tax Dollars at Work

- Conducted at 42 sites in the U.S. and Europe
- Follow-up studies of over 14 years!
- Much of the neurological research in this presentation comes from this study.
- China, England, Israel, Russia, Sweden and Turkey have conducted similar studies…

(Lyon, G.R. (1999). In Celebration of Science in the Study of Reading Development, Reading Disorders and Reading Instruction. Paper presented at the International Dyslexia Association 50th Annual Anniversary Conference, November 4, 1999, Chicago, IL.)

Your Tax Dollars at Work

- 30,000 scientific works from NICHD research
- 44,000 studied, 5 yrs old and up; with 5 year follow-ups
- No Child Left Behind
  - 38 to 40% overall illiteracy rate in U.S.
  - 70% illiteracy/African Americans
  - 65% illiteracy/Hispanic Americans
    - They don't have the English language literacy and speech experiences of other ethnicities.

Lyon, G.R. (Thursday, February 27, 2003). Application of Scientific Research Methods to the Study of Naming Deficits: Systematic Interventions to Improve Fluency in Word Reading Skills and Comprehension. Paper Presented at the 40th Annual Learning Disabilities Association Conference, Chicago, IL, Session T-39.)

Your Tax Dollars at Work

- 48,000 children have been in the study as of 2004. The follow-up study is now 21 years.
- 3,800 in new adult study
- 2 to 6% of the population are the “Hard Core” Dyslexics that will not improve with “Good Instruction”. They have the full dyslexic neurology and need “multisensory approaches”.

Lyon, G.R. (March 19, 2004). A Summary of Current NICHD Research Findings in Math, Reading Development in English Speaking Children and Plans For Future Research. Seminar Presented that the 41st Annual Learning Disabilities Association of America International Conference, Atlanta, Georgia, March 17 to March 20, 2004.

Your Tax Dollars at Work

- 3 to 5% of community samples experience Major Depressive Disorder in lifetime
- Dysthymic Disorder is 3%
- 3 to 13% Social Phobia
- 3 to 5% Generalized Anxiety Disorder
- 0.4 to 1.6% Bipolar Disorder

American Psychological Association (1994). Diagnostic and Statistical Manual of Mental Disorders, IV Edition. Washington, DC: American Psychiatric Association.

Your Tax Dollars at Work

- For the first time school curriculum policy and funding for reading programs will be based on science!
- New reading programs will be researched much like the FDA tests new medications!
- New studies: Adolescent Literacy Project, Adult Literacy Project, Teacher Training

Reading Disorder-Dyslexia

"The idea that learning to read is just like learning to speak is accepted by no responsible linguist, psychologist, or cognitive scientist in the research community" (pp. 285-286).

(Stanovich, K.E. (1994). Romance and Reality. The Reading Teacher, 47, pp. 280-291.)

The Neurology of Reading Disorder-Dyslexia

- An irregularity in the cellular architecture of the posterior planum temporal region of Wernike's area in the left temporal lobe
- They have ectopias and dysplasias in far greater numbers
- Results of 9 autopsies of dyslexics

(Duane, D.D. (1993). Developmental Disorders of Learning, Attention, and Affect. Videotape prepared by the Institute for Behavioral Neurology, 10201 North 92nd Street, Suite #300, Scottsdale, AZ.)

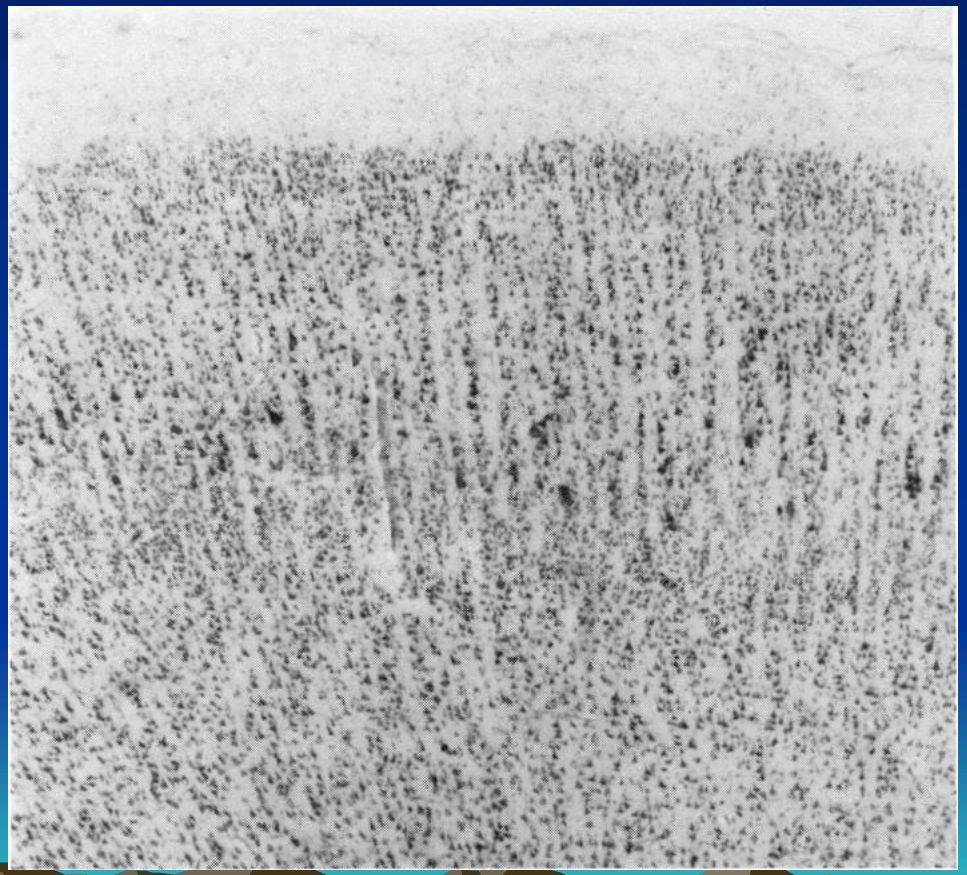
(Riccio, C.A., and Hynd, G.W. (1996). Neurological Research Specific to the Adult Population with Learning Disabilities. In N. Gregg, C. Hoy, and A.F. Gay (Eds.), Adults with Learning Disabilities: Theoretical and Practical Perspectives. New York, NY: Guilford, pp. 127-143.)

Planum Temporale and Dyslexia

* 2/3rds of normals have asymmetry of planum temporale (Lt> Rt)
* Dyslexics' planum Temporale are symmetrical
* These differences are important as this area is related to one of the functional difficulties of dyslexia—language.

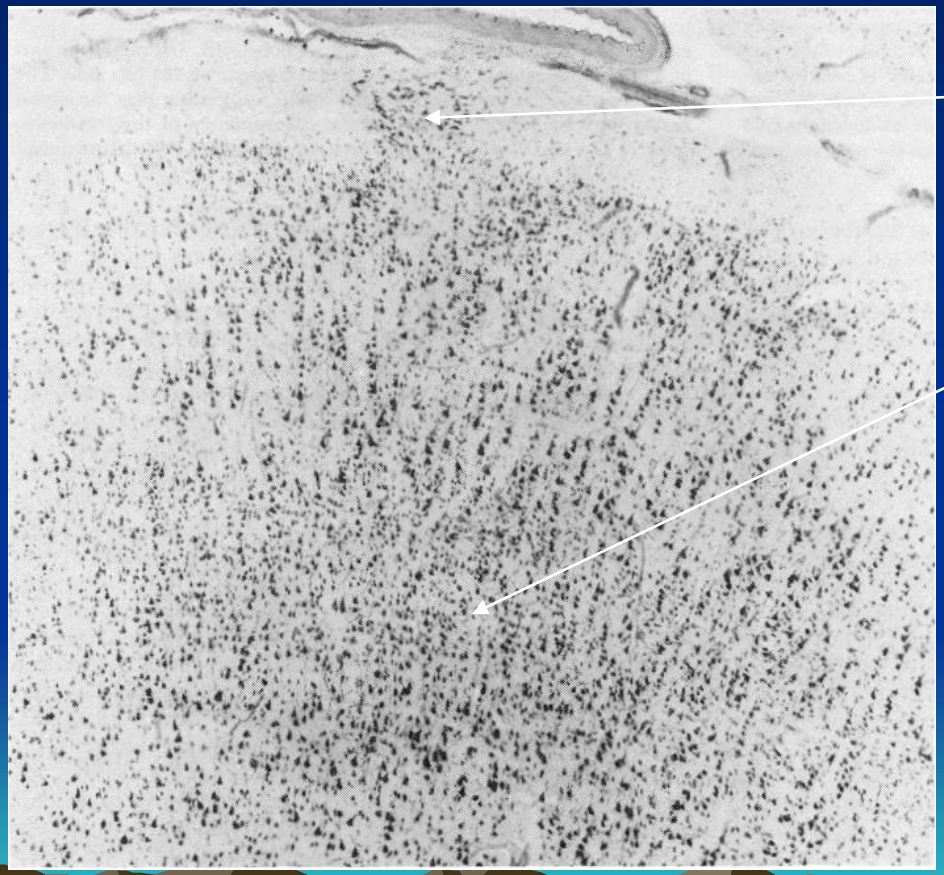
(Fiedorowicz, C., et. al. (2001). Neurobiological Basis of Learning Disabilities. Learning Disabilities, 11 (2), pp. 61-74)

Non-Dyslexic Plenum Temporale



Geshwind, N. (1979). Specializations of the human brain. The Brain. New York, NY: W.H. Freeman, pp. 108-117– picture on page 116.)

Dyslexic Plenum Temporale



Dysplasia

Ectopia

Geshwind, N. (1979). Specializations of the human brain. The Brain. New York, NY: W.H. Freeman, pp. 108-117– picture on page 116.)

“Vana may I buy a PHONEME?”

- Smallest part of speech
- 44 in English language
- All words spoken or read must be broken down by the brains phoneme module to be processed remembered, etc.

(Shaywitz, S.E. (November, 1996). Dyslexia. Scientific American, 275 (5), p. 98-104.)

The Core Phonological Deficit

- Phonological deficits continue into adulthood
- Phonological instruction promotes learning to read
- Spelling is poor and reading rate is slow into adulthood—Time pressure make them worse

(Pugh, K.R., et. al. (2001). Neurorimaging Studies of Reading Development and Reading Disability. Learning Disabilities Research & Practice, 16 (4), pp. 240-249.)

(Duane, D. (1991). Dyslexia: Neurobiological and Behavioral Correlates. Psychiatric Annals, 21 (12), pp. 703-716.)

Phonemic Awareness and Genetics

- This may be related to anomalies on Chromosome 6
- Single word reading –anomalies on Chromosome 15 (long arm)

(Lyon, G.R. (1999). In Celebration of Science in the Study of Reading Development, Reading Disorders and Reading Instruction. Paper presented at the International Dyslexia Association 50th Annual Anniversary Conference, November 4, 1999, Chicago, IL.)

(Fiedorowicz, C., et. al. (2001). Neurobiological Basis of Learning Disabilities. Learning Disabilities, 11 (2), pp. 61-74)

Other Areas of Brain Symmetry in Dyslexia

- Increased posterior symmetry
- Dyslexics with severe language delay reversed parietal-occipital asymmetry – rt planum > lt
- Dyslexics tend to have a larger right hemisphere than left in adulthood.

(Richardson, S.O. (1994). Doctors Ask Questions About Dyslexia: A Review of Medical Research (The Orton Emeritus Series). Baltimore, MD: Orton Dyslexia Society)

Filipek, P.A., et.al. (1999). Structural and Functional Neuroanatomy in Reading Disorder. In D.D. Duane (Ed.), Reading and Attention Disorders: Neurobiological Correlates. Baltimore, MD: York, p. 48.)

Dyslexia and the Lateral Geniculate Nucelus

"…several studies on low-level visual processing have found that people with dyslexia show visual abnormalities that implicate a deficit in the transient (magnocellular) subdivision of the visual pathway" (p. 81).

(Livingstone, M.S. (1999). The Magnocellural/Parietal System and Visual Symptoms in Dyslexia. In D.D. Duane (Ed.), Reading and Attention Disorders: Neurobiological Correlates. Baltimore, MD: York Press, pp. 81-92.)

Dyslexia and the Lateral Geniculate Nucelus

- The Magnocellular system appears to be slower in some dyslexics.
- The Magnocellular system transmits arrangement and shape of words and letters—sight reading.
- The Parvocellular system transmits details of letters and syllables.

(Richardson, S.O. (1994). Doctors Ask Questions About Dyslexia: A Review of Medical Research (The Orton Emeritus Series). Baltimore, MD: Orton Dyslexia Society)

Dyslexia and the Lateral Geniculate Nucelus

"…several studies on low-level visual processing have found that people with dyslexia show visual abnormalities that implicate a deficit in the transient (magnocellular) subdivision of the visual pathway" (p. 81).

(Livingstone, M.S. (1999). The Magnocellural/Parietal System and Visual Symptoms in Dyslexia. In D.D. Duane (Ed.), Reading and Attention Disorders: Neurobiological Correlates. Baltimore, MD: York Press, pp. 81-92.)

Dyslexia and the Lateral Geniculate Nucelus

Research has demonstrated that dyslexics are slower at processing both visual and auditory information.

(Richardson, S.O. (1994). Doctors Ask Questions About Dyslexia: A Review of Medical Research (The Orton Emeritus Series). Baltimore, MD: Orton Dyslexia Society)

The Double Deficit Hypothesis

- Rapid Automatized Naming (RAN)
- Some dyslexics have phonological and word attack problems only.
- Some dyslexics have RAN and comprehension deficits only.
- Some have both phonological deficits and RAN and thus have the “Double Deficit”
  - These are the most seriously impaired and hardest to habilitate.

(Wolf, M., and O’Brien, B. (2001). On Issues of Time, Fluency, and Intervention. In A.J. Fawcett (Ed.), Dyslexia: Theory and Good Practice. Philadelphia, PA: Whurr, pp. 124-140.)

The Triple Deficit Hypothesis

"*Orthographic dyslexia* refers to a problem with the acquisition of decoding or encoding skills that is caused by difficulty with rapid and accurate formation of word images in memory" (p. 239).

(Roberts, R., and Mather, N. (1997). Orthographic Dyslexia: The Neglected Subtype. Learning Disabilities Research & Practice, 12 (4), pp. 236-250.)

The Triple Deficit Hypothesis

Those with Orthographic Processing deficits:

- Have difficulty recalling sight words (i.e., was, etc.)
- Are slow to develop fluency and automaticity
- Have difficulty storing mental representations of words
- Rely on phonics for reading and produce misspellings that are phonemically regular for sight words

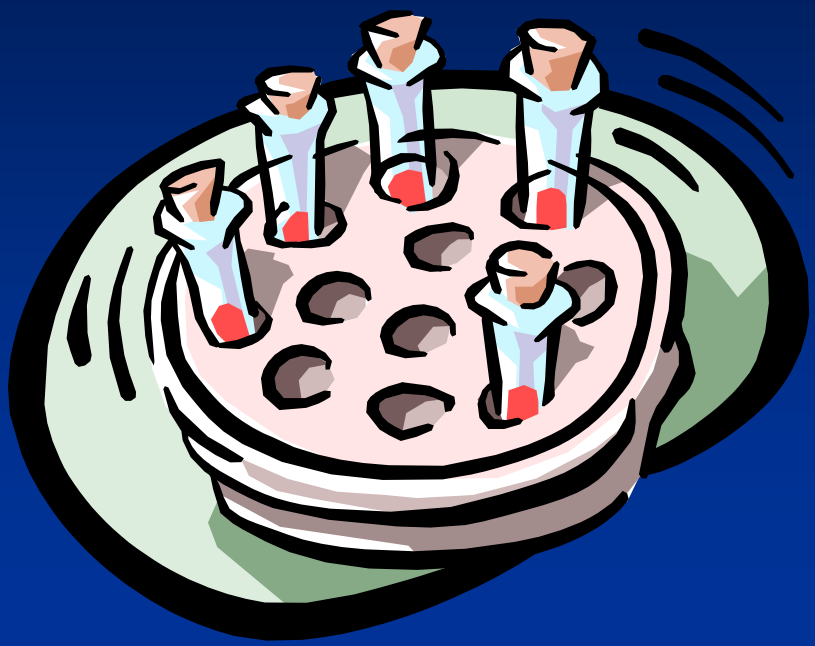
(Roberts, R., and Mather, N. (1997). Orthographic Dyslexia: The Neglected Subtype. Learning Disabilities Research & Practice, 12 (4), pp. 236-250.)

The Triple Deficit Hypothesis

"In a synthesis of Samuel T. Orton's work, June Orton…explained that for some students, visual memory is sufficient enough to recognize the printed word in reading, but not strong enough to recall the image of the word to reconstruct it for spelling" (p. 244).

(Roberts, R., and Mather, N. (1997). Orthographic Dyslexia: The Neglected Subtype. Learning Disabilities Research & Practice, 12 (4), pp. 236-250.)

The Triple Deficit Hypothesis



Anomalies on Chromosome 2 are related to problems in orthographic processing in dyslexics.

(Lyon, G.R. (1999). In Celebration of Science in the Study of Reading Development, Reading Disorders and Reading Instruction. Paper presented at the International Dyslexia Association 50th Annual Anniversary Conference, November 4, 1999, Chicago, IL.)

Dyslexia and The Cerebellum

Fawcett and Nicolson reported research that dyslexic children have significant problems with phonology, working memory, speed of information processing, balance and motor skills. With the exception of phonology the remaining symptoms can be attributed to cerebellar problems.

(Fawcett, A.J., Nicolson, R.I. (2001). Dyslexia and The Role of The Cerebellum. In A.J. Fawcett (Ed.), Dyslexia: Theory & Good Practice. Philadelphia, PA: Whurr, pp. 89-105.)

Dyslexia and The Cerebellum

80% of dyslexics show signs of cerebellar problems!

(Fawcett, A.J., Nicolson, R.I. (2001). Dyslexia and The Role of The Cerebellum. In A.J. Fawcett (Ed.), Dyslexia: Theory & Good Practice. Philadelphia, PA: Whurr, pp. 89-105.)

Dyslexia and The Cerebellum

- Automaticity is the problem!
- When multitasking and rapid processing are needed
- Thinking is a frontal lobe function
- It is a problem of fluency
- "…fluency is in essence the ability to repeat previous actions or thoughts more and more quickly without conscious thought" (p. 101).

(Fawcett, A.J., Nicolson, R.I. (2001). Dyslexia and The Role of The Cerebellum. In A.J. Fawcett (Ed.), Dyslexia: Theory & Good Practice. Philadelphia, PA: Whurr, pp. 89-105.)

Dyslexia and The Cerebellum

Nicolson Said Bottom Line:

"…That means if you have a task that takes 4 hours for the non-dyslexic kid to learn, it will take twice as long for the dyslexic kid; 8 hours. But, it's not linear. You have a task which takes 100 hours it will take 10 times as long. If you have a task that takes 10,000 hours it will take 100 times as long, and so on…Therefore if you have something like reading, writing and spelling which takes 100s…"

Dyslexia and The Cerebellum

"…of hours that's the sort of thing in which dyslexic children are particularly adversely affected."

(Nicolson, R., and Fawcett, A. (November, 2000). Dyslexia The Cerebellum and Phonological Skill . Paper presented at the International Dyslexia Association Annual Conference, Washington, DC.)

Dyslexia and the Cerebellum

Anomalies on Chromosome 15 are related to problems with automaticity in dyslexics.

(Lyon, G.R. (1999). In Celebration of Science in the Study of Reading Development, Reading Disorders and Reading Instruction. Paper presented at the International Dyslexia Association 50th Annual Anniversary Conference, November 4, 1999, Chicago, IL.)

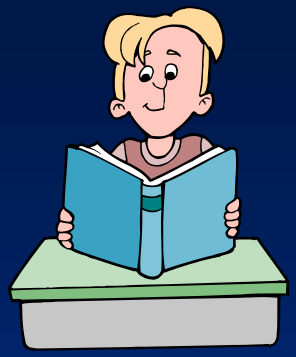
Reading Disorder-Dyslexia

The Symptoms of Dyslexia are:

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

(Fawcett, A.J. (2001). Dyslexia: Theory & Good Practice. Philadelphia, PA: Whurr.)
(Blake, K.. (2003) Personal Observation)

"LEXDEXIA"

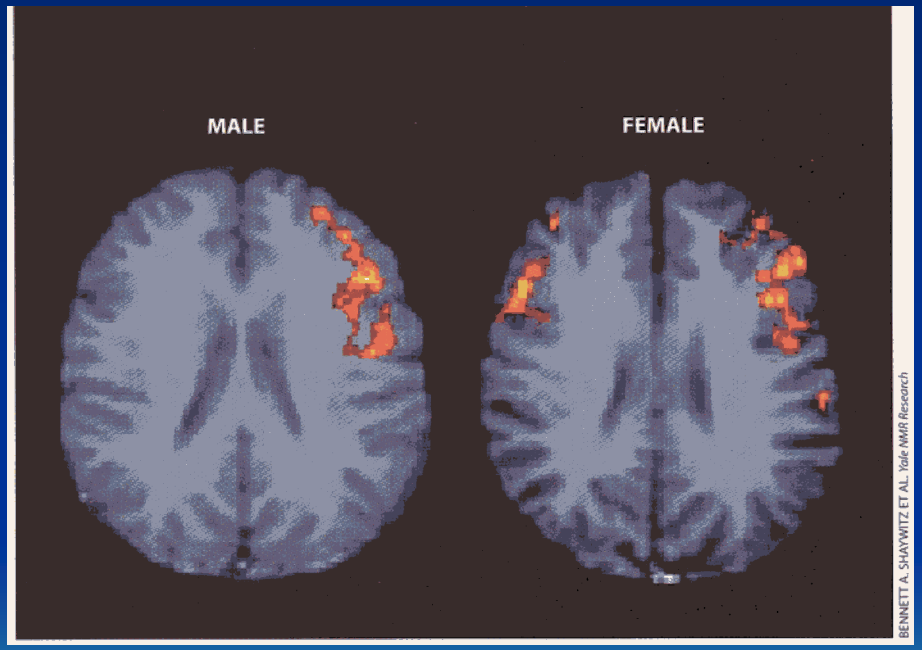


- The "reversal phenomenon" ("b" as "p"; "p" as "d", etc.) occurs in most children up to third grade.
- Only about 7% of adult dyslexics have this concern.
- Dyslexia is ***not*** seeing the word "WAS" as "SAW".

(Anderson, C.W., Jr. (August, 1994). Personal Communication, Topeka, KS.)

Phonological Processing in Men and Women.

(Shaywitz, S.E. (November, 1996). Dyslexia. Scientific American, 275 (5), p. 104.)



The Stages of the "Normal" Reading Process

1. "The Phoneme Producer"
   (Left Inferior Frontal Gyrus)
2. "The Word Analyzer"
   (Left Parieto-Temporal Region)
3. "The Automatic Detector"
   (Left Occipito-Temporal Region) (P. 57).

(Gorman, C. (July 28, 2003). The New Science of Dyslexia. Time, 162 (4), pp. 52-59.)

The Stages of the "Normal" Reading Process

- *Left Inferior Frontal Gyrus*
  - Helps to vocalize words
  - Analyzes phonemes
  - Most active in Beginning Readers

(Gorman, C. (July 28, 2003). The New Science of Dyslexia. Time, 162 (4), pp. 52-59.)

How do Dyslexics Read?

- As dyslexics mature they tend to over activate the Left Frontal Broca's region.
- This allows them to subvocalize what they read (The Broca's region is responsible for vocalization).
- They slowly "move" their way through reading.

(Shaywitz, S. (2003). Overcoming Dyslexia. New York, NY: Knopf.)

The Stages of the "Normal" Reading Process

- *Left Inferior Frontal Gyrus*
  - Helps to vocalize words
  - Analyzes phonemes
  - Most active in Beginning Readers

(Gorman, C. (July 28, 2003). The New Science of Dyslexia. Time, 162 (4), pp. 52-59.)

Why Don't Dyslexics Get Better With Age?

- Dyslexics also use an auxiliary system for reading in the Right Frontal lobe that allows for accurate, but slow reading.

(Shaywitz, S. (2003). Overcoming Dyslexia. New York, NY: Knopf.)

Why Don't Dyslexics Get Better with Age?

- "The identical posterior disruption is observed in children and adults—neurologic proof that the problems do not go away. They are persistent, and now we know why." (p. 82).

(Shaywitz, S. (2003). Overcoming Dyslexia. New York, NY: Knopf.)

Is There Any Evidence That Using Synthetic Multi-Sensory Phonics Works with Dyslexics?

- *YES!*
- Shaywitz (2003) wrote of research where dyslexic children were taught with Multi-sensory Phonics for a year matched the brain patterns of children who were good readers. They became fluent and accurate readers.

(Shaywitz, S. (2003). Overcoming Dyslexia. New York, NY: Knopf.)

Other Reading Problems

- Sight Word, Non-Decoding Reading
- Reading Disorder of Recall/Comprehension
- Reading Disorder of Oral Reading-Word Finding
- Reading Disorder-Hyperlexia
- Reading Epilepsy
- Aphasia/Alexia/Acquired Dyslexia
- Linguistic Coding Difference (Foreign Language)
- Depression/Anxiety caused Reading Comprehension and Rate Problems

LD Life Insight

"The school system never felt compelled to educate me on how having a LD would impact my life"- Garett Day

(McGrady, H., Lerner, J., and Boscardin, M.L. (2001). The Educational Lives of Students with Learning Disabilities. In P. Rodis, A. Garrod, and M.L., Boscardin (Eds.), Learning Disabilities & Life Stories. Boston, MA: Allyn and Bacon, p. 185)

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.)

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.)

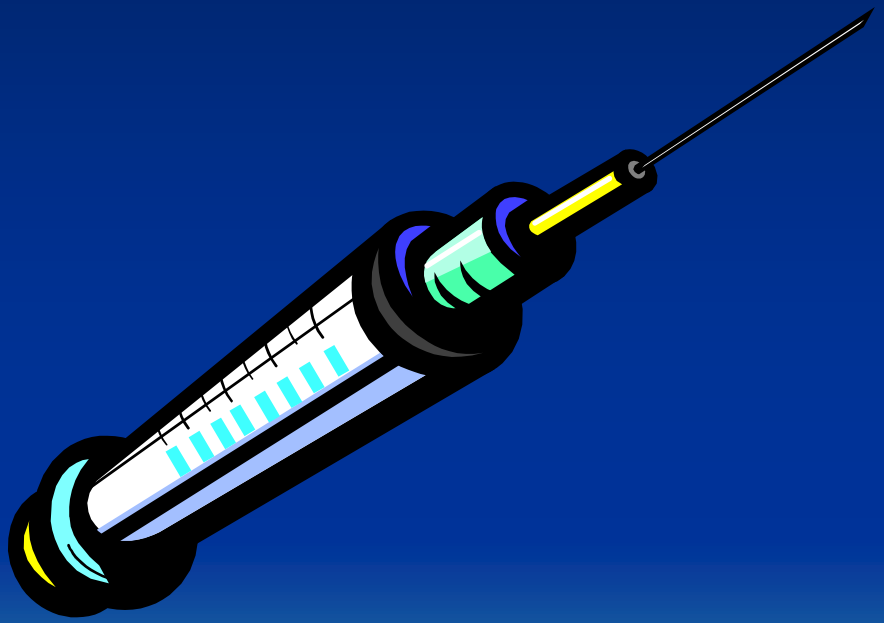
Treatment of AD/HD

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.)

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. Possible 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.)

Stimulants and AD/HD

"Thus, 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.

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

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.)

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

- 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.

PLEASE ENJOY LUNCH!

We will be starting over in an hour.

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

Antidepressants and AD/HD

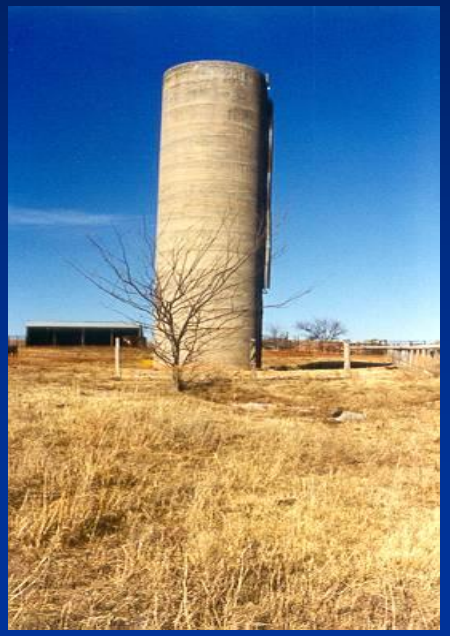
Tricyclic Antidepressants:

- Desipramine (Norpramin, Pertofane)
- Impramine (Toranil)
- 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.

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 Effect 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.)

Other Antidepressants used with AD/HD

- Wellbutrin (Buproprion)
- 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.)

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

- 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.)

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 woman 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, extrogenous 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, as SSRI…and estrogen replacement may be necessary to 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.)

Resource for AD/HD Women

- National Center for Gender Issues and AD/HD: www.addvance.com/ADDvance/NCGI.htm

Diagnosing Dyslexia

"The converging evidence reviewed here indicates clearly that I.Q. – Achievement discrepancies are invalid diagnostic markers for LD in reading skills. Such a discrepancy simply does not differentiate a poor reader with average to above intelligence from a poor reader whose intelligence is commensurate with his or her low reading ability" (Lyon, 1996, p. 24).

(Lyon, G.R. (1996). The State of Research. In S.C. Cramer and W. Ellis (Eds.), Learning Disabilities: Lifelong Issues. Baltimore, MD: Brookes, pp. 3-61.)

Diagnosing Dyslexia: Dispelling the Myth of the DSM-IV,TR

- None of the NICHD research supports this method.
- Unfortunately, before research could be done the method became the “Law of The Land”.
- What is in the DSM-IV, TR is based on an ***INCORRECT GUESS THAT WAS MADE OVER 35 YEARS AGO, NOT ON RESEARCH***

(Lyon, G.R. (May 5, 1997). Personal Communication.)

Dyslexia Screening Methods for Clinicians

NONSENSE PASSAGES

Once upon a time a tawndy rapsig named Gub found a tix of pertollic asquees. So chortlich was he with his discovery that he murtled a handful to show Kon, a cagwitzpat. "Pagoo!" cried Kon. "With these you could treeple a frange!" "No," smiled Gub, "I think I'll just paible a catwicine."

The traphestal difference between the bafister jacepot and the torquial wexid lies in the function of the dighton. In the former, the dighton scelliates the waudey, while in the latter it unhoves the eutone. Still, miastic similarity between the two cannot be deflayed.

Gross-Glenn, K., Jallad, B., Novoa, L., Helgren-Lempesis, & Lubs, H.A. (1990). Nonsense Passage Reading as a Diagnostic Aid in the Study of Adult Familial Dyslexia. Reading and Writing: An Interdisciplinary~ Journal, .2, 161-173.

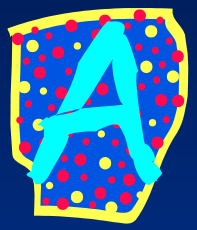
Dyslexia Screening Methods for Clinicians

- A Dictated Spelling test like that in the WRAT-III
  - Don't use for diagnostic purposes-just screening!
  - Don't use any form of WRAT Reading Test
- Look for phonetically irregular spellings
- Ask about school history with reading!
- If they have "Trouble" refer them for a complete Psychoeducational Evaluation.

Diagnosing Dyslexia

- ***LEARN THE DOCUMENTATION GUIDELINES FOR LEARNING DISORDERS***
  - Association on Higher Education and Disability (AHEAD) (1997). Guidelines for Documentation of a Learning Disability in Adolescents and Adults. Available from: AHEAD, P.O. Box 21192, Columbus, OH 43221-0192; Voice: 614-488-4972; Web: www.ahead.org

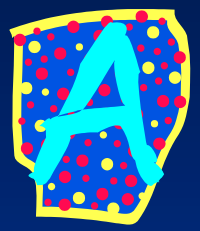
How to Help Dyslexic Adults with Reading



National Reading Panel

- Panel of government funded experts released a report to United States Congress (April 13, 2000)
- Reviewed over 100,000 reading research articles published since 1966
- 10 to 15 percent of dyslexics will drop out of high school
- 2 percent will graduate college

How to Help Dyslexic Adults with Reading

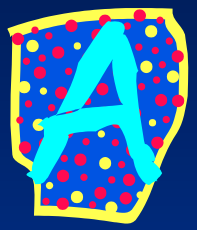


National Reading Panel

- First teach phonemic awareness (rhyming, clapping out word sounds, etc.)
- Second teach phonics (sound to symbol)
- Third teach Whole Language
- In this order with dyslexics

(National Reading Panel (4/13/2000). www.nichd.gov/publications/pubs/readbro.htm)

How to Help Dyslexic Adults with Reading



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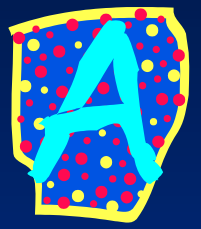


"Although the NICHD research indicates that there is no cure for RDD (sic-Reading Disorder-Dyslexia), many RDD adults can improve their reading skills by remediation with a systematic-synthetic multisensory-phonics technique. For example the adult with RDD is asked to look at a phoneme (one of the 44 sounds of the English language in letter form), make the sound of the phoneme (i.e., B-"b") and then with their fingers…

How to Help Dyslexic Adults with Reading

…trace the letter as they look at it and say its sound. This ‘see it-say it-trace it’ technique has been quite successful in teaching those with RDD to read. Perhaps the best known of these teaching methods is the Orton-Gillingham. However, there are over 10 other systematic-synthetic-multisensory-phonics techniques that are equally helpful” (p. 31).

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

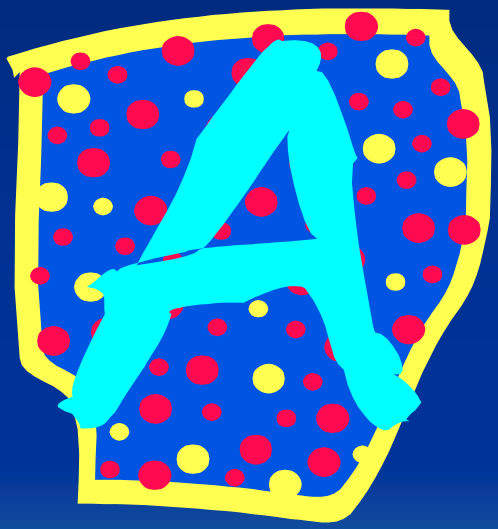
Multisensory Teaching Techniques

- Orton-Gillingham
- Alphabetic Phonics
- Recipe for Reading
- Project Read
- Slingerland
- Wilson
- Language!
- Lindamood-Bell
- Fernald

- All of these use some sort of a “see it-say it-trace it” technique.
- This is not an exhaustive list!

Where Can You Find Those That Teach Reading This Way?

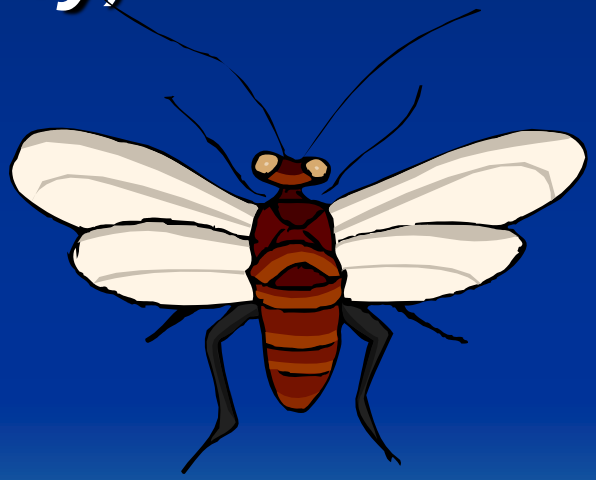
- International Dyslexia Association
  8600 La Salle Road,Suite 382
  Baltimore, MD 21286-2044
  Phone: 410-321-296-0232
  Fax: 410-321-5069
  Web: www.interdys.org
  E-mail: info@interdys.org



Alternative and Integrative Medicine Treatments of AD/HD & LD

"We should all eat dung, because a thousand flies can't be wrong!"

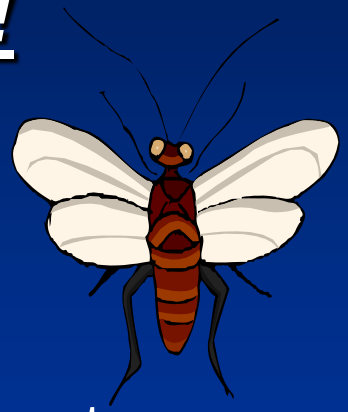
Russell Barkley, Ph.D.



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

Alternative, Integrative & Complementary Medicine and LD and AD/HD

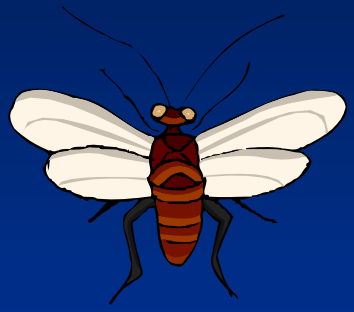
- December 2003 edition of ***Attention!*** Available from CHADD.
- CHADD's National Resource Center
- www.MyADHD.com
- Rappaport, L.A., & Kemper, K.J. (2003). Complimentary and Alternative Therapies in Childhood Attention and Hyperactivity Problems. Developmental and Behavioral Pediatrics, 24, pp. 4-8.
- Silver, L. (Summer, 2001). Controversial Therapies, Theme Editor's Summary. Perspectives, 27 (3), pp.1 and 4.)



Places to Check Out "New" Treatments for AD/HD and LD

- Ingersoll, B., and Goldstein, S. (1993). Attention-Deficit Disorder and Learning Disabilities: Realities Myths and Controversial Treatments. New York, NY: Doubleday.
- www.quackwatch.com
- National Center for Complimentary and Alternative Medicine: www.nccam.nih.gov

Places to Check Out "New" Treatments for AD/HD and LD



- www.interdys.org
- 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.

LD and AD/HD Comorbidities

Emotional Overlay and Learning Disorders

- Seigel (1974) concluded that the most common problems for LD adults are social/emotional.
- Roffman (2000) wrote “It is difficult to grow up with LD and experience repeated failure and relentless taunting from peers without secondary psychological issues often referred to as *emotional overlay*. Emotional overlay does not always develop into diagnosable mental health problems…, but the symptoms can be quite debilitating nonetheless” (p. 44).

(Seigel, E. (1974). The Exceptional Child Grows Up. New York, NY: W.H. Freeman.)

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

"Stereotype Threat"

- "…the threat of being viewed through the lens of a negative stereotype, or fear of doing something that would inadvertently confirm that stereotype" (p. 4).
- Spotlight Anxiety (William Cross) and over trying
- Hard work and persistence always pays off
- Let them know they are not being judged on their LD and/or AD/HD, etc. Just on the quality of their work.

Steele, C.M. (August 1999). Thin Ice: "Stereotype Threat" and Black College Students. Atlantic Monthly, Digital Edition. From website: www.theatlantic.com/issues/99aug/9908stereotype.htm , pp.1- 8.

Gregg, N., et. al. (March 18, 2004). Equity and Accommodations: Elementary through Postsecondary. Seminar Presented at the 41st Annual Learning Disabilities International Conference, Atlanta, GE, Session T-29.

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 and AD/HD

Pliszka indicated the following regarding Comorbitities 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.)

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.)

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.)

LD and Comorbidity

- The research into the comorbidities of LD and Dyslexia is not as extensive or thorough as it is with AD/HD for all age levels.
- Comorbidity has almost been an after thought in the LD literature.

Comorbidity and Learning Disorders

- Porter and Rourke studied a large group of LD children from ages 6 to 15 and found:
  - Approximately 44% had no emotional problems.
  - Approximately 26% were depressed, anxious, shy, or suffered low self-esteem.
  - Approximately 17% had Conduct Disorder
- ***Hence 56% of LD individuals have comorbidities***

(Porter, J.E., and Rourke, B.P. (1985). Socioemotional Functioning of Learning Disabled Children: A Subtype Analysis of Personality Patterns. In B.P. Rourke (Ed.), Neuropsychology of Learning Disabilities: Essentials of Subtype Analysis. New York, NY: Bruner/Mazel, pp. 218-235.)

Comorbidity and Learning Disorders

- Research and observation of clinicians who work with LD adults tend to concur with the above.
- LD adults are more at risk for anxiety, depression, conduct problems and severe psychopathology than non-LD peers. The severity is more pronounced when they have comorbid AD/HD.

(Brier, N. (1993). LEAD 2000 Congress, Little Rock.AR.)

(Hooper, S.R., and Olley, J.G. (1996). Psychological Comorbidity in Adults with Learning Disabilities. In N. Gregg, C. Hoy, and A.F. Gay (Eds.), Adults With Learning Disabilities: Theoretical and Practical Perspectives. New York, NY: Guilford, pp. 162-183.)

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

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.)

LD//AD/HD and Low Self-Esteem

- “Reasonably assume that most individuals with learning disabilities have had a more difficult course and are more likely to experience feelings of low self-esteem” (p. 24).
- “However, when the dyslexic succeeds, he is likely to attribute his success to luck. When one fails, he simply sees himself as stupid” (p. 9).

(Goldstein, S. (1998). Emotional Problems In Adults with Learning Disabilities.: An Often Unseen but Not Insignificant Problem. LDA Newsbriefs, 33 (4), p. 24.)

(Ryan, M. (1994). The Other Sixteen Hours: The Social and Emotional Problems of Dyslexia. Baltimore, MD: Orton Dyslexia Society.)

AD/HD and/or LD and Depression

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.)

Non-Pathological Depression

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 on 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 LD//AD/HD

Goldstein spoke of adults with LD and/or AD/HD 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 LD//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”.***

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 ***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.)

Exhaustion and Learning Disorders//AD/HD

Roffman wrote, “One final ongoing issue that is worthy of mention for many with LD/ADHD is the problem of fatigue. The extra effort required to cope with the continued social and academic demands of schooling can be chronically exhausting” (p. 217).

(Roffman, A.J. (2000). Meeting The Challenge of Learning Disabilities In Adulthood. Baltimore, MD: Brookes.)

LD Life Insight

"The process of continually compensating can be deeply tiring. Betty notes that she often is exhausted as a direct result of the enormous effort that she expends on building on her strengths and working around her weaknesses. She notes, 'You're always compensating and you're tired a lot" (p. 261).

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

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

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.)

Dyslexia and Dysthymia

- “The often unsympathetic attitude and behavior of other people undermines their confidence and contributes to the development in many dyslexics of profound and deeply ingrained low self-esteem. Negativity is more potent when significant people in the dyslexic’s life…have dismissed them as having low intelligence” (p. 49).

McLoughlin, D., Fitzgibbon, G., and Young, V. (1994). The Adult Dyslexic: Assessment, Counseling, and Training. San Diego, CA: Singular.)

LD and Dysthymic Disorder

- "For some adults with LD, a seeming inability to understand why life continues to be a struggle creates a tragic and self-perpetuating cycle of Loneliness and Despair" (p. 72).
- "…the sheer day-to-day effort required of individuals with LD can be exhausting and dispiriting" (p. 48).

(Reiff, H.B., and Gerber, P.J. (1994). Social/Emotional and Daily Living Issues for Adults with Learning Disabilities. In P.J. Gerber and H.B. Reiff (Eds.), Learning Disabilities in Adulthood. Austin, TX: Pro-Ed, pp. 72-81.)

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

LD Life Insight

"It is a common trait among the LD to know how to endure hardship and keep dark secrets" – Oliver Queen

(Kegan, R. (2001). Easing a World of Pain: Learning Disabilities and the Psychology of Self-Understanding. In P. Rodis, A. Garrod, and M.L. Boscardin (Eds.), Learning Disabilities & Life Stories. Boston, MA: Allyn and Bacon, p. 194.)

Major Depressive Disorder and LD

- LD adults are more at risk for suicide. Many LD adults have had difficulties with depression.
- "Depression may also generate low self-esteem and feelings of worthlessness as a result of negative feedback from others" (p. 49).

(Cordoni, B. (1987). Living With A Learning Disability. Carbondale, IL: Southern Illinois University Press.)

(Smith,S.L. (1991). Succeeding Against the Odds: Strategies and Insights From The Learning Disabled. Los Angeles, CA: Jeremy Tarcher.)

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

Major Depressive Disorder and Dyslexia

- Ryan wrote that dyslexics are at risk for depression. The following are characteristics of depressed dyslexics he discussed:
  - They tend to have a negative self-image.
  - They tend to view their world negatively.
  - They are hopeless about the future.

(Ryan, M. (1994). The Other Sixteen Hours: The Social and Emotional Problems of Dyslexia. Baltimore, MD: Orton Dyslexia Society.)

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.)

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.)

Anxiety and Learning Disorders//AD/HD

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.J. (2000). Meeting The Challenge of Learning Disabilities In Adulthood. Baltimore, MD: Brookes.)

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.)

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.)

LD and Anxiety

- LD college students have more problems with anxiety than do their non-disabled peers.
- Generalized Anxiety Disorder is frequently found in LD adults.
- Dyslexics tend to have significant problems with anxiety.

(Hoy, C. Gregg, N., et. al. (1997). Depression and Anxiety in Two Groups of Adults with Learning Disabilities. Learning Disability Quarterly, 20, pp. 280-291.)

(Hooper, S.R., and Olley, J.G. (1996). Psychological Comorbidity in Adults with Learning Disabilities. In N. Gregg, C. Hoy, and A.F. Gay (Eds.), Adults with Learning Disabilities: Theoretical and Practical Perspectives. New York, NY: Guilford, pp. 162-183.)

Ryan, M. (1994). The Other Sixteen Hours: The Social and Emotional Problems of Dyslexia. Baltimore, MD: Orton Dyslexia Society.)

Social Anxiety

Temple Grandin indicated that for those with autism spectrum disorders, social adaptation must occur at the conscious level. This could be said of those with LD and/or AD/HD.

(Gandin, T. (1995). Thinking in Pictures: and Other Reports From My Life With Autism. New York, NY: Vintage.

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.)

LD and Social Anxiety

“The Cerebellum has only recently been implicated in the normal functioning of social behavior…new research has shown that the cerebellum is important as a mediator in cognition. To perceive an object or event, we must pull together the various sensory qualities and any relevant memories or thoughts in a carefully timed way…the cerebellum assists in delaying or accelerating these associations, and regulates attentional states…”

LD and Social Anxiety

- “ Coordinating associations and attention is essential to entering into a relationship with another human being. Communication, conversation, and graceful social interaction all depend on being able to pay attention to another person and to one’s own internal states and to alternate easily back and forth between them” (p.305).

(Ratey, J.J. (2001). A User’s Guide to the Brain: Perception, Attention, and the Four Theaters of the Brain. New York, NY: Vintage.

LD and Social Anxiety

Fawcett asked, “Why aren’t dyslexics just useless?” To which she responded, “dyslexics are able to learn, but their impaired cerebellar function makes learning more labored than it does for non-dyslexics.”

(Fawcett, A. (March 11, 1998). Cerebellar Dysfunction in Dyslexia. Paper presented at the 35th Learning Disabilities Association Conference Pre-Conference Symposium, Washington, DC.)

LD and Social Anxiety

"If you have a deficit in social ability (i.e., in brain hardware for social interaction) you are forced to create software to compensate for it. That is hard and takes time and energy. It also takes an action which is for most people unconscious and makes it conscious, hence it will never be as 'automatic and efficient' as an ability. Such compensation skills divide attention and make tasks, which are by their nature not conscious more onerous and less efficient creating frustration…"

LD and Social Anxiety

"…When additional stimuli is added on an unpredictable basis this requires a cognitive shift and these learned skills tend to break down which may lead to a feeling of vulnerability and anxiety.

People with such disabilities tend to fatigue faster in social situations and perform cognitively less efficiently when engaged in their 'social skills' compensations…"

LD and Social Anxiety

A source of frustration and anxiety for individuals with these deficits is most peoples' social interactions are automatic because they do not have these deficits and they frequently do not understand the struggles of those who must socialize on a cognitive level" (p. 10).

(Blake, K.T.,and Anderson, C.W.-Jr. (November 14, 2002). Neuropsychological Deficits Underlying Social Skills Weaknesses and Strategies for Remediation. Paper presented at the 53rd Annual International Dyslexia Conference, Session T-53, Atlanta, GE, From Handout, p. 10.)

LD and Social Anxiety

- LD adults may not have the amount of social experience that their non-disabled peers have.
- “I have no stories to tell.”

(Jordan, D.R. (1984). Personal Communication.)

(Jordan, D.R. (2002). Overcoming Dyslexia in Children, Adolescents, and Adults. Austin, TX: Pro-Ed.)

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.)

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., 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.)

LD and Obsessive Compulsive Disorder

- LD adults may be at risk for OCD
- One study indicated approximately 23% of LD children have OCD.

(Spreen, O. (1988). Learning Disabled Children Grown Up: A Follow-Up Into Adulthood. New York, NY: Oxford Press.)

(Swedo, S.E., et. al. (1989). Obsessive Compulsive Disorder in Children and Adolescents. Archives of General Psychiatry, 46, 335-341.)

Oppositional Defiant Disorder and AD/HD

- 50% to 67% of AD/HD have ODD
- ODD is NOT a childhood Dx. ODD 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.)

Break Time! Please be back in 15 Minutes!

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 then 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.)

LD and Borderline Personality Disorder

- Those with LD and/or AD/HD are more at risk for Borderline Personality Disorder.
- Some with Borderline Personality Disorder have EEGs that indicate abnormal 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.)

LD and Borderline Personality Disorder

Dyslexics have a lower seizure threshold than those without LD.

(Duane, D. D. (1993). Developmental Disorders of Learning, Attention and Affect. Videotape prepared by the Institute for Behavioral Neurology, 10210 North 92nd Street, Suite 300, Scottsdale, AZ 85258.)

LD and Borderline Personality Disorder

- The comorbidity rate of LD with Borderline Personality Disorder reported in the literature is from 20% to 100%.
- Research at the Menninger Clinic indicated it was 39%.

(Berg, M. (1992). Learning Disabilities in Children with Borderline Personality Disorder. Bulletin of the Menninger Clinic, 56 (3), 379-392.)

LD and Borderline Personality Disorder

- 81% of those with BPD have a history of brain injury vs. 22% controls.
- 44% of those with BPD had developmental anomalies and 58% had developmental and brain injury.
- 7 of 9 borderlines had evidence of frontal lobe problems in a pilot study.

(Victor, B.S. (October 14-17, 1999). Treatment of Impulsivity and Aggression in Patients with Personality Disorders. Paper presented at the Better Recognition and Treatment of Personality Disorders, Bipolar Disorder and Social Phobia Conference, CME, Inc., Scottsdale, AZ.)

LD and Borderline Personality Disorder

- Borderlines have increased left side soft neurological signs.
- Those with aggressive tendencies have right side soft signs.
- They also show soft signs of frontal lobe on Wisconsin Card Sort.
- Antidepressants with anticonvulsants can help these individuals.

(Victor, B.S. (October 14-17, 1999). Treatment of Impulsivity and Aggression in Patients with Personality Disorders. Paper presented at the Better Recognition and Treatment of Personality Disorders, Bipolar Disorder and Social Phobia Conference, CME, Inc., Scottsdale, AZ.)

LD and Borderline Personality Disorder

- By far the largest group of LD persons are Dyslexics.
- Dyslexics have a lower seizure threshold.
- A major area of neurological anomalies is the temporal lobe.
- Often those with temporal lobe seizures have similar symptoms to those with Borderline Personality Disorder.
- BPD in dyslexics may be temporal lobe seizures.

(Berg, M. (1995). Personal Communication.)

LD and Borderline Personality Disorder

- “The poorly defined sense of self, unstable interpersonal relationships, and sensitivity to rejection that are typical of borderline personality disorder may also be the direct result of learning disabilities” (p. 134).
- (Wren, C. and Einhorn, J. (2000). Hanging by a Twig: Understanding and Counseling Adults with Learning Disabilities and ADD. New York, NY: W.W. Norton.)

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.)

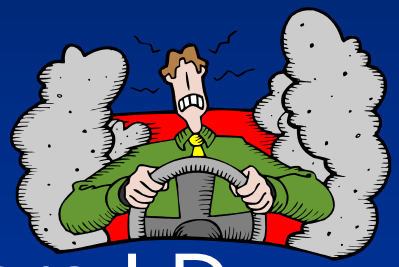
APD and AD/HD

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.

LD and Antisocial Personality Disorder

- 17% of LD adolescents meet criteria for Conduct Disorder.
- LD teens are twice as likely to be delinquent-35% of teens in prison are LD.



(Porter, J.E., and Rourke, B.P. ((1985). Socioemotional Functioning of Learning Disabled Children: A Subtype Analysis of Personality Patterns. In B.P. Rourke (Ed.), Neuropsychology of Learning Disabilities: Essentials of Subtype Analysis. New York, NY: Guilford.)

(Lewkowicz (1996). Helping Children Through Juvenile Court: The Youngster with Learning Disabilities. LDA Newsbriefs, 31 (1), pp. 23 and 28.)

LD and Antisocial Personality Disorder

- About 3 out of 4 males in prison show dyslexic symptoms.
- Average reading level of prisoners = 4th grade

(Jordan, D.R. (2002). Overcoming Dyslexia In Children, Adolescents,and Adults (Third Edition). Austin, TX: Pro-Ed.)

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

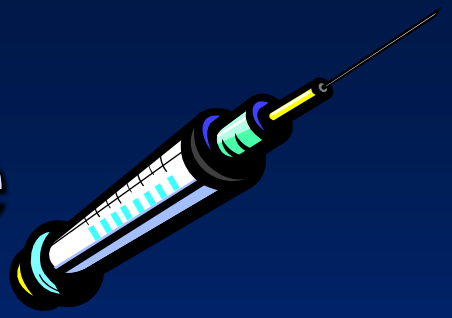
(Barkley, R.A. (1996). ADHD in Children, Adolescents, and Adults: Diagnosis, Assessment, and Treatment. New England Educational Institute, Cape Cod Symposia, August, Pittsfield, MA.

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.)

LD and Substance Abuse



- Several of the adults with LD/ADHD whom Roffman interviewed spoke of past struggles with substance abuse (p. 51).
- Up to 60% of those with LD are in treatment for substance abuse.

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

(Ellis, W., and Cramer, C. (1996). Introduction. W. Ellis, and C. Cramer (Eds.), Learning Disabilities:Lifelong Issues. Baltimore, MD: Brookes, pp. XXVII-XXXI.)

(Esposito, J.T. (1998). Parents Don't Care– Or Do They? LDA Newsbriefs, 31 (1), pp. 20-21.)

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% of AD/HD 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 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 Reading Disorder

- AD/HD was connected to slower object naming and processing speed, greater variability in reaction time, and more inhabition (with/without Reading Disorder)
- Reading Disorder was associated with slower verbal retrieval, and poor verbal working memory (with/without AD/HD).
- AD/HD and Reading Disorder additionally connected to slow reaction time, slower naming of numbers and colors

(Ruckledge, J.J., and Tannock, R. (2002). Neuropsychological Profiles of Adolescents with ADHD: Effects of Reading Difficulties and Gender. Journal of Child Psychology and Psychiatry, 43, 988-1003. From: (June, 2003). Discriptive and Predictive Value of Neuropsychological Measures for ADHD and RD Examined. ADHD Report, 11 (3), p. 12.)

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)

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 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.)

Focus of Treatment for LD and AD/HD

- Prolonged Grief
- Interpersonal Role Disputes
- Role Transitions
- Developing Necessary Interpersonal Skills
- Family Issues

(Goldstein, S. (1998). Emotional Problems In Adults with Learning Disabilities.: An Often Unseen but Not Insignificant Problem. LDA Newsbriefs, 33 (4), p. 24.)

Psychotherapy and LD

Why most LD adults seek therapy

- Stress and anxiety coping with life issues affected by the disability
- Low self-esteem
- Unresolved grief
- Sense of helplessness

(Barton, R.S., and Fuhrmann, B.S. (1994). Counseling and Psychotherapy for Adults with Learning Disabilities. In P.J. Gerber, and H.B. Reiff (Eds.), Learning Disabilities in Adulthood: Persisting Problems and Evolving Issues. Austin, TX: Pro-Ed, pp. 82-96.)

Psychotherapy for LD

Growth for LD Clients Relies On:

- a strong therapeutic relationship and bond;
- the therapist helping the client to understand their disability as well as his/her cognitive processing style(strengths and weaknesses); and
- interventions that fit the social, emotional and cognitive needs of the client.

(Barton, R.S., and Fuhrmann, B.S. (1994). Counseling and Psychotherapy for Adults with Learning Disabilities. In P.J. Gerber, and H.B. Reiff (Eds.), Learning Disabilities in Adulthood: Persisting Problems and Evolving Issues. Austin, TX: Pro-Ed, pp. 82-96.)

Psychotherapy and LD

Secondary features of Dyslexia

- Problems remembering facts, figures, sequences, names, and with working memory
- Problems with organization
- Problems with following conversation

(McLoughlin, D., Fitzgibbon, G., and Young, V. (1994). The Adult Dyslexic: Assessment Counseling and Training. San Diego,CA: Singular.)

Psychotherapy and LD

Potential Social Interaction Problems of Dyslexics

1. Facial Perception and Recognition
2. Difficulties with making and interpreting gestures, body language, inflection and tone of voice
3. Difficulty making central inferences in social situations regarding mood and attitude
4. Problems with determining correct response

(Wren, C., and Einhorn, J. (2000). Hanging by a Twig: Understanding and Counseling Adults with Learning Disabilities and ADD. New York, NY: Norton.)

Psychotherapy and LD

- Those with learning disabilities may have more difficulty with everyday adult living than they did when they were in school.
- They may not be able to make a good living, have a social life, run a family, etc.

(Wren, C., and Einhorn, J. (2000). Hanging by a Twig: Understanding and Counseling Adults with Learning Disabilities and ADD. New York, NY: Norton.)

Therapeutic Rules of Thumb

- ***NEVER*** give bibliotherapy, even to "high functioning" dyslexics. A "little book" that may take you 2 hours to read may take them 20 and they may have low comprehension.
- Time is the LD adult's most valuable commodity.
- Leisure or fun reading are oxymorons for dyslexics.
- Remember most mental health professionals are "eulexics". Dyslexics by definition are not!
- Options-Books on Tape for the Blind and Dyslexic, videos, read to your client, etc.

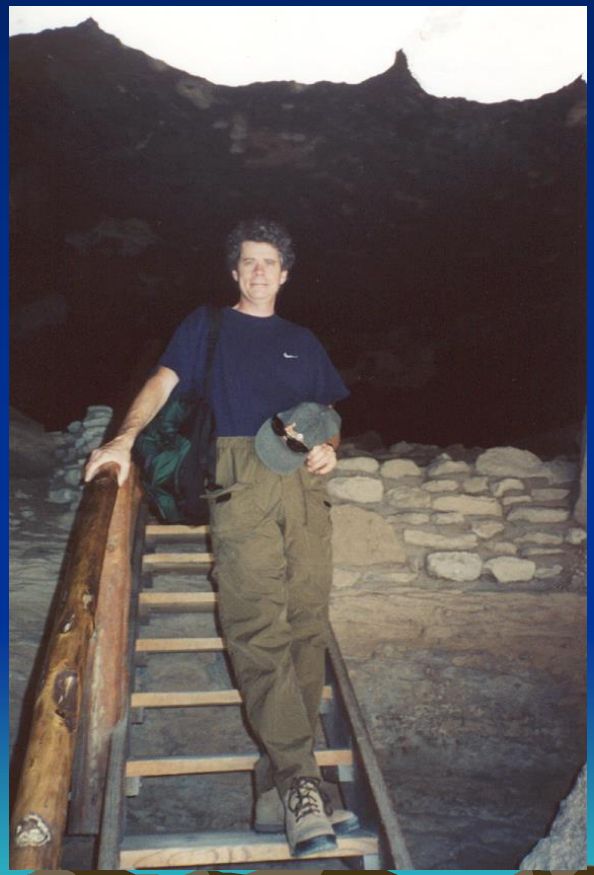
Therapeutic Rules of Thumb

- **NEVER** have your dyslexic client journal. You have asked them to take a massive spelling and written expression test that is horridly time consuming. Many dyslexics have comorbid Developmental Coordination Disorder-Dysgraphia and/or Disorder of Written Expression.
- Options– do an audio taped journal, allow word processing, allow them to dictate to another person (Note: Computers don't work for everyone!)

Therapeutic Suggestions

- Help client complete intake forms, insurance forms, checks, etc.
- Give them information about support groups and helpful organizations.

LD Life Insight



Therapeutic goal:

Change “being LD” to “having LD”.

(Rodis, P. (2001). Forging Identities, Tackling Problems, and Arguing with Culture: Psychotherapy with Persons Who Have Learning Disabilities. In P. Rodis, A. Garrod, and M.L., Boscardin (Eds.), Learning Disabilities & Life Stories. Boston, MA: Allyn and Bacon, pp. 205-230.)

Therapeutic Issues

- Don’t brush over their, “…little reading problem”.
- Their disabilities have been discounted for years by significant people in their lives.
- Don’t say things like, “Oh, I don’t like to read either. I must be dyslexic too”.
- Ask if they have diagnostic evaluations of their disabilities. Ask for authorization to get copies of reports and speak to evaluators. Follow through with this if you ask for these.

Therapeutic History Questions

- Do you read the newspaper?
- If not how do you get your news?
- How do you spell words correctly on checks?
- How do you keep your checkbook? Who keeps your check book?
- Do you eat in ethnic restaurants?
- Do you vote?
- What do you say when someone asks you, “what do you like to read?”

Therapeutic History Questions

- When someone asks you such a question how do you feel?
- How do you feel when someone gives you a book as a gift.
- What do you say when they ask you later about what happened in the book?
- Are you afraid of making mistakes when completing “official forms” (i.e. job applications, IRS forms, etc.)?

Therapeutic History Questions

- Does it take you longer to get familiar with changes at work.
- Have you not taken a job promotion because you fear you could not do it?
- Can you read a map?
- Do you get lost often?
- If so, how do you get found?
- What do you do when you are asked to read aloud?

Therapeutic History Questions

- Who reads to you?
- Do you avoid traveling because of your reading concerns?
- How do you know it is safe to tell others of your reading problems?
- How do you know it is safe to tell an employer about your reading problem?
- How do you feel when someone corrects your spelling?

Therapeutic History Questions

- How are you manifesting your learning difficulties in this therapy session?
- How will you understand and remember what goes on in therapy?
- Tell me the name of your disability, how you manifest it and what kinds of academic and work accommodations you need.
- How do you cover your dyslexia?

Therapeutic History Questions

- How do you compensate?
- What technology do you use to compensate?
- Do you want to learn more about your disability and hoe to make life with it easier?
- Do you have difficulty expressing yourself emotionally?
- Do you have problems recalling names?

Therapeutic History Questions

- Do you have problems following conversations?
- Do you have problems understanding facial expressions, body language, and/or gestures?
- Do you have problems dating, flirting, maintaining relationships, marriage, etc.
- Do you have problems parenting?
- Other questions?

AD/HD and Driving

- How to Treat AD/HD Driving Problems:
  - More Driver Training
  - Restricted Graduated License Procedure
  - Stimulant Medication

(Barkley, R, Murphy, K., Bush, T., and DuPaul, G. (April, 2003). What Contributes to the Elevated Driving Risks in ADHD Adults? ADHD Report, 11 (2), pp. 1-5.)

AD/HD in Girls

- Just as in boys there is more ODD and CD in Combined Type Girls
- Combined and Inattentives have more Speech and Language Disorders, Anxiety and Depression than Controls
- More grade retention, parenting problems, and peer status problems too

(Hinshaw, S.P. (2002). Preadolescent Girls with Attention-Deficit/Hyperactivity Disorder: I. Background Characteristics, Comorbidity, Social Functioning, and Parenting Practices. Journal of Consulting and Clinical Psychology, 70, pp. 1086-1098. FROM: Research Findings. ADHD Report, 11 (2), P. 14.)

AD/HD in Girls

- Combined Types Were:
  - More likely to have ODD and CD than Inattentives
  - More likely to be socially rejected than inatentives
  - Less likely to be as socially isolated as inattentives

(Hinshaw, S.P. (2002). Preadolescent Girls with Attention-Deficit/Hyperactivity Disorder: I. Background Characteristics, Comorbidity, Social Functioning, and Parenting Practices. Journal of Consulting and Clinical Psychology, 70, pp. 1086-1098. FROM: Research Findings. ADHD Report, 11 (2), P. 14.)

AD/HD in Girls

- AD/HD girls tend to have more aggressive social responses than controls.
- AD/HD girls tend to predict more negative outcomes socially than controls.
- AD/HD girls have lower social status than controls

(Thurber, J., et. al. (2002). The Social Behaviors and Peer Expectations of Girls with Attention Deficit Hyperactivity Disorder and Comparison Girls. Journal of Clinical Child and Adolescent Psychology, 31, pp. 443-452. FROM: Research Findings. ADHD Report, 11(2), p. 14.)

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

"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 psychopharmocology 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

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. 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

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 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

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 comorbitities

(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

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

Keep and 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)

AD/HD and Marriage

- AD/HD Spouse's Problematic Behaviors:
  - "Doesn't remember being told things
  - Says things with out thinking
  - 'Zones out' in conversations
  - Has trouble dealing with Frustration
  - Has trouble getting started on a task

AD/HD and Marriage (Continued)

– Underestimates time needed to complete a task

– Leaves a mess

– Doesn’t finish household projects” (p. 27).

(Robin, A. L. (October, 2002). Snapshots of an AD/HD Marriage. Attention!, 9 (2), pp. 21-27.)

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
- AD/HD person must be seen as trying to change
- Align with spouses 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 struggle to understand and appreciate partner's struggles
- Hard to understand AD/HD spouse's behavior not under their control
- Those with AD/HD become flooded with emotion 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 form AD/HD spouse for empathy

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

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.)

Psychotherapy and LD

"Many adults with dyslexic difficulties develop coping and compensatory strategies and usually can become quite adept at disguising the presence of dyslexia. Due to this many remain unfulfilled, often underestimating their abilities, perhaps working in an occupation that does not use their real abilities or even declining promotion for fear that their dyslexic difficulties are exposed" (p. 292).

(Kirk, J., McLoughlin, D., and Reid, G. (2001). Identification, and Intervention in Adults. In A. Fawcett (Ed.), Dyslexia: Theory and Good Practice. Philadelphia, PA: Whurr, pp. 292-308.)

Psychotherapy and LD

"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 LD

…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 LD

Some LD People:

- are not aware of there disability and do not know how to compensate for it;
- are aware of their disability and do not know how to compensate for it;
- are aware of their disability and unconsciously compensate for it;
- are aware of their disability and consciously develop compensation strategies.

(McLoughlin, D., Fitzgibbon, G., and Young, V. (1994). The Adult Dyslexic: Assessment Counseling and Training. San Diego,CA: Singular.)

Psychotherapy and LD

- Often the Dyslexics biggest fear is being "found out"– That others will learn they cannot read…
- They fear change because they fear they will not be able to compensate…
- They are frustrated with their literacy difficulties and social problems…

(McLoughlin, D., Fitzgibbon, G., and Young, V. (1994). The Adult Dyslexic: Assessment Counseling and Training. San Diego,CA: Singular.)

Psychotherapy and LD

"It has been well documented in the childhood literature that psychotherapy for symptoms of ADHD and LD is ineffective in changing the core problems of these disorders. However, clinicians are also well aware that the comorbid, or accompanying, problems that the adult ADHD and LD populations experience are similar to the problems other adults experience and will likely respond to general therapeutic approaches".

(Goldstein, S. (1997). Psychosocial Treatments. In S. Goldstein (Ed.), Managing Attention and Learning Disorders in Late Adolescence & Adulthood: A Guide for Practitioners. New York, NY: John Wiley and Sons, pp. 236-265.)

Psychotherapy and LD

"Further, while there may be some benefit to short-term information-focused counseling when an adult is initially diagnosed with ADHD or LD, there is no data to suggest that long-term counseling concentrating on the symptoms of these disorders is particularly helpful" (p. 264).

(Goldstein, S. (1997). Psychosocial Treatments. In S. Goldstein (Ed.), Managing Attention and Learning Disorders in Late Adolescence & Adulthood: A Guide for Practitioners. New York, NY: John Wiley and Sons, pp. 236-265.)

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)

P.O. Box 543

Pottstown, PA 19464

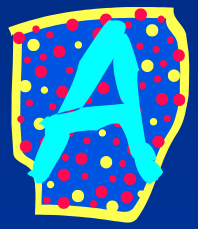
www.add.org

LD//AD/HD Organization

Learning Disabilities Association of America (LDA)
4156 Library Road
Pittsburgh, PA 15234
412-341-1515
www.ldanat.org

Organization for Dyslexia

- International Dyslexia Association
- 8600 LaSalle Road
- Chester Building, Suite 382
- Baltimore, MD 21286-2044
- www.interdys.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