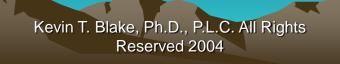
TWO COMMON READING **PROBLEMS EXPERIENCED BY** AD/HD ADULTS 11TH Annual ADDA International Conference, Tucson, AZ Kevin T. Blake, Ph.D., P.L.C. Licensed Psychologist Tucson, AZ 520-327-7002 kblake@theriver.com

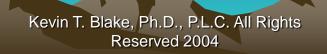


AD/HD and Learning Disorders

- 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). <u>ADHD in Children, Adolescents, and Adults: Diagnosis, Assessment, and</u> <u>Treatment</u>. Cape Cod Symposia, August, Pittsfield, MA.

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

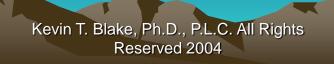


AD/HD and Learning Disorders

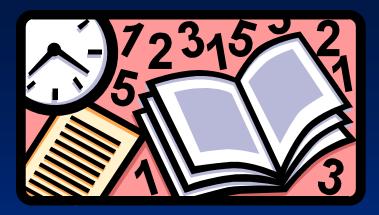
Hynd indicated Those with Inattentive AD/HD:

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

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



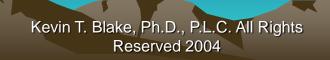
AD/HD and Learning Disorders



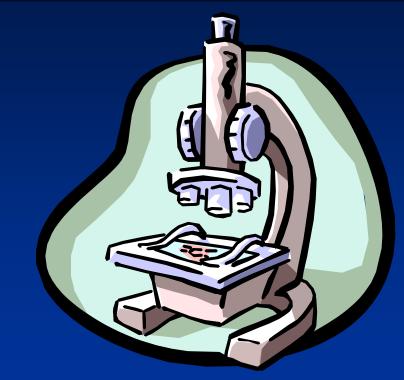
Barkley stated:

- 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). <u>ADHD and Oppositional Defiant Children</u>. Seminar Presented February 19-20, Phoenix, AZ, The Institute for Continuing Education, Fairhope, AL, from handout, pp. 9)
 (Barkley, R.A. (2002) <u>Mental and Medical Outcomes of AD/HD</u>. Pre-Conference Institute, # TPA1, Thursday October 17, 2002, 14th Annual CHADD International Conference, Miami Beach, FL.)



Your Tax Dollars at Work



<u>RESEARCH PROGRAM IN READING</u> <u>DEVELOPMENT, READING DISORDERS, AND</u> <u>READING INSTRUCTION</u>



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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, <u>Reading Disorders and Reading Instruction</u>. Paper presented at the International Dyslexia Association 50th Annual Anniversary Conference, November 4, 1999, Chicago, IL.)

The Core Phonological Deficit:

"When they are learning to read, most individuals with dyslexia have trouble identifying the separate speech sounds that make up words (phonemes) or the letters (graphemes) that represent those speech sounds" (p. 4).

(Moats, L.C. (1999). <u>Basic Facts About Dyslexia, Part II: What Every</u> <u>Professional Ought to Know (The Orton Emeritus Series)</u>. Baltimore, MD: The International Dyslexia Association.)

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

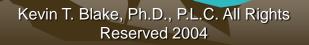
(Pugh, K.R., et. al. (2001). Neurorimaging Studies of Reading Development and Reading Disability. Learning Disabilities Research & Practice, <u>16</u> (4), pp. 240-249.)
 (Duane, D. (1991). Dyslexia: Neurobiological and Behavioral Correlates. <u>Psychiatric Annals, 21</u> (12), pp. 703-716.)

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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.), <u>Dyslexia: Theory and Good Practice</u>. Philadelphia, PA: Whurr, pp. 124-140.)



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

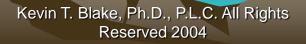
(Roberts, R., and Mather, N. (1997). Orthographic Dyslexia: The Neglected Subtype. Learning Disabilities Research & Practice, 12 (4), pp. 236-250.)

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).

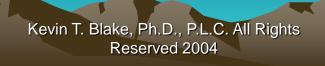
(Fawcett, A.J., Nicolson, R.I. (2001). Dyslexia and The Role of The Cerebellum. In A.J. Fawcett (Ed.), <u>Dyslexia:</u> <u>Theory & Good Practice</u>. Philadelphia, PA: Whurr, pp. 89-105.)

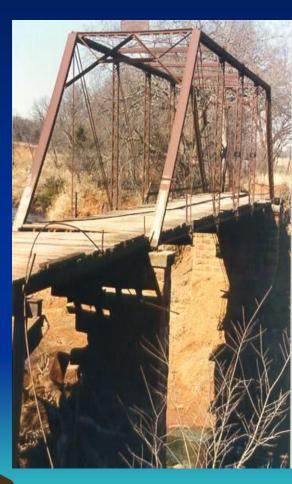


<u>Reading Disorder-Dyslexia</u>

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). <u>Dyslexia: Theory & Good Practice</u>. Philadelphia, PA: Whurr.)(Blake, K.. (2003) Personal Observation)





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)
 Multisensory Synthetic Phonics (O-G)
- 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

"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 systematicsynthetic 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

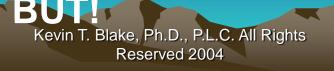
...trace the letter as they look at it and say its sound. This 'see it-say it-trace it' technique has been quite successful in teaching those with RDD to read. Perhaps the best known of these teaching methods is the Orton-Gillingham. However, there are over 10 other systematic-synthetic-multisensory-phonics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

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

Reading Disorder-Recall/Comprehension



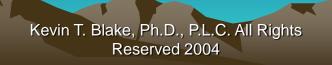
- Some call this "word calling" or "Nonspecific Reading Disability"
- Often confused with hyperlexia
- Frequently found in AD/HD adults
 - They have no problems with:
 - Phonemic Awareness
 - Rapid Automatized Naming
 - Orthographic Processing



Reading Disorder-Recall Comprehension

They cannot remember what they have just read after reading a sentence, paragraph or page.

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



Reading Disorder-Recall/Comprehension This appears to be a problem with Verbal and Nonverbal Working Memory

- A function of the Internalized Speech problem of AD/HD; Barkley speaks of this when he explains his theory of AD/HD:
 - Verbal Working Memory=Internalized Speech
 - Nonverbal Working Memory=remembering the spatial location of objects, planning, passage of time

AD/HD adults often have subtle language comprehension problems

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

Reading Disorder Diagnosis

- Intellectual assessment (WAIS-III, KIAT, SB5,)
- Thorough reading assessment (WJ-III-ACH, WIAT-II, etc)
- Thorough history
- Sentence and Paragraph Reading Comprehension (Nelson-Denny, SATA, etc.)
- Working Memory Assessment (WMS-III, WJ-III-Cog, etc)
- Listening Comprehension Assessment (TOAL, Oral Lang-WJ, etc.)

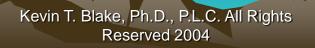
Language Assessment (Speech Language

Assessment)

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 <u>INCORRECT GUESS THAT WAS MADE OVER</u> <u>35 YEARS AGO, NOT ON RESEARCH</u>

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



Documenting Reading Disorders



• <u>LEARN THE DOCUMENTATION</u> <u>GUIDELINES FOR LEARNING</u> <u>DISORDERS</u>

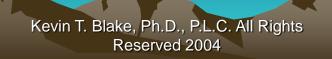
 Association on Higher Education and Disability (AHEAD) (1997). <u>Guidelines for Documentation</u> of a Learning Disability in Adolescents and <u>Adults</u>. Available from: AHEAD, P.O. Box 21192, Columbus, OH 43221-0192; Voice: 614-488-4972; Web: www.ahead.org

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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). <u>Accommodations in Higher Education Under the Americans with</u> <u>Disabilities Act: A No-Nonsense Guide for Clinicians, Educators, Administrators, and Lawyers</u>. New York, NY: Guilford.)



Reading Disorder-Recall/Comprehension Treatment



- Medication (Ritalin, Adderal, etc.)
- SQ4R (Survey, Question, Read, Write, Recite and Review, etc.)
- Lindamood-Bell <u>Visualizing and Verbalizing For</u> <u>Language Comprehension and Thinking</u> program
- Drawing pictures of what they have read
- If all else fails send them to a speech language pathologist for intensive language comprehension work

Reading Disorder-Recall/Comprehension



- Treat comorbidities (Reading Disorder-Dyslexia, depression, anxiety, etc.)
- Reading Disorder/Dyslexia and Reading Disorder can occur comorbidly.

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

(Bell, N. (1991). <u>Visualizing and Verbalizing Teacher's Manual</u>. San Luis Obispo, CA: Grander Educational Publishing.)

