

How DSM-5 Has Changed The Conceptualization of AD/HD and What It Means For Classroom Management

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Barkley's Rules for Classroom Management



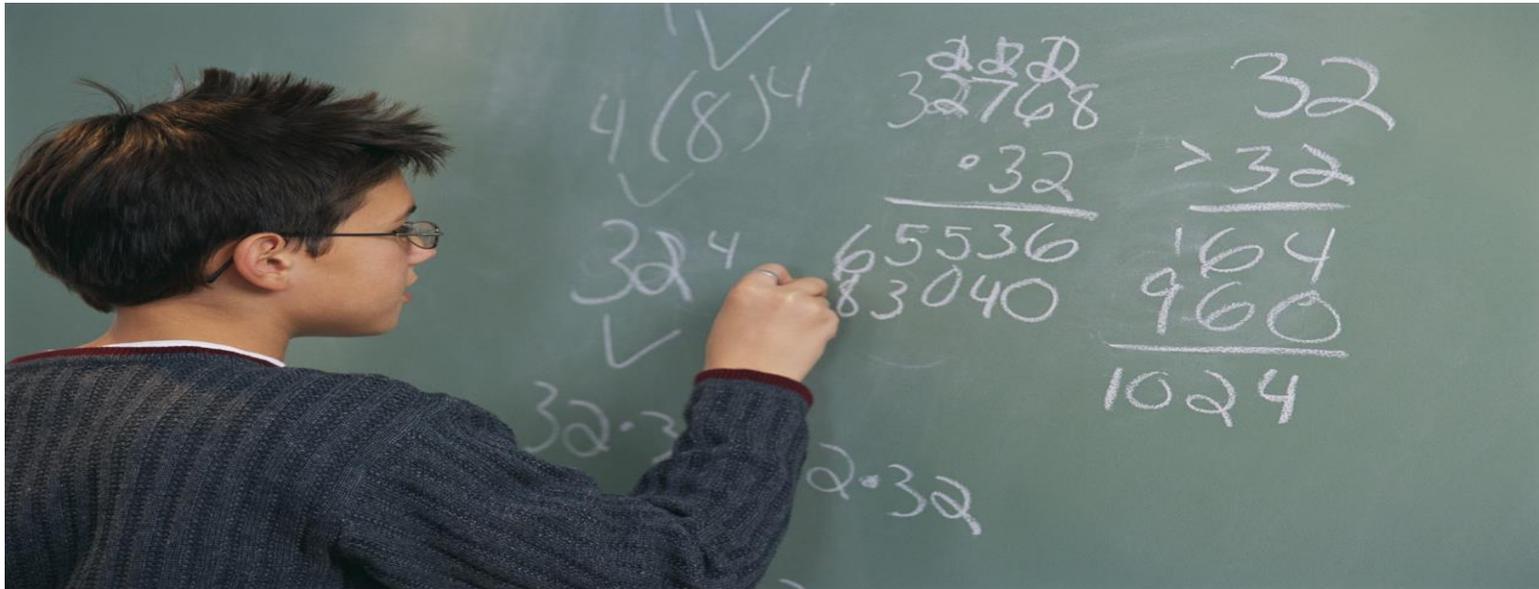
Barkley's Rules for Classroom Management

1. **“Rules and instruction provided to children with ADHD must be clear, brief and often delivered through more visible modes of presentation and external modes of presentation than required for the management of children without ADHD” (p. 7).**



Barkley's Rules for Classroom Management

2. "Consequences used to manage the behavior of ADHD children must be delivered swiftly and more immediately than is needed for children without ADHD" (p. 8).



Barkley's Rules for Classroom Management

3. **“Consequences must be delivered more frequently, not just more immediately, to children with ADHD in view of their motivational deficits” (p. 8).**



Side Bar

**“ADHD children are less sensitive to social praise and reprimands, so the consequences for good or bad behavior must be more powerful than those needed to manage the behavior of non-ADHD children”
(p. 223)**

Pfiffner, J.J. (1995). Enhancing Education at School and at Home: Methods from Kindergarten Through Grade 12. In R.A. Barkley (Ed.), Taking Charge of ADHD: The Complete Authoritative Guide for Parents. New York, NY: Guilford, pp. 222-239.

Barkley's Rules for Classroom Management

4. **“The type of consequences used with children with ADHD must often be of a higher magnitude, or more powerful, than that needed to manage the behavior of other children” (p. 8).**



Barkley's Rules for Classroom Management

5. **“An appropriate and often richer degree of incentives must be provided within a setting or task to reinforce appropriate behavior before punishment can be implemented” (p. 8).**



Side Bar

“ Rewards and incentives must be put in place before punishment is used, or your child will come to see school as a place where he or she is more likely to be punished than rewarded. Make sure the teacher waits a week or two after setting up a reward system at school before starting to use punishment. Then make sure the teacher gives two to three rewards for each punishment” (p. 223).

Pfiffner, J.J. (1995). Enhancing Education at School and at Home: Methods from Kindergarten Through Grade 12. In R.A. Barkley (Ed.), Taking Charge of ADHD: The Complete Authoritative Guide fro Parents. New York, NY: Guilford, pp. 222-239.

Barkley's Rules for Classroom Management



6. **“Those reinforcers or particular rewards that are employed must be changed or rotated more frequently for ADHD children than for those without ADHD, given the penchant of the former for more rapid habituation or satiation to response consequences, apparently rewards in particular” (p. 8).**

Side Bar

- **“ADHD Children become bored with particular rewards faster than other children, and teacher who fail to recognize that fact often give up on the program too soon, believing it has stopped working” (p. 223).**
- **The 30 to 40% rule also applies to how long rewards and punishments work with AD/HD kids.**

Pfiffner, J.J. (1995). Enhancing Education at School and at Home: Methods from Kindergarten Through Grade 12. In R.A. Barkley (Ed.), Taking Charge of ADHD: The Complete Authoritative Guide for Parents. New York, NY: Guilford, pp. 222-239.

Barkley's Rules for Classroom Management

7. "Anticipation is the key with ADHD children" (p. 8).



Barkley's Rules for Classroom Management

8. **“Children with ADHD must be held more publicly accountable for their behavior and goal attainment than other children” (p. 8).**



Barkley's Rules for Classroom Management

9. **“Behavioral interventions, while successful, only work while they are being implemented and, even then, require continued monitoring and modification over time for maximal effectiveness” (p. 8).**



Reference

Barkley, R. A. (2008). Classroom Accommodations for Children with ADHD. The ADHD Report, 16(4), 7-10.



What Can I do With AD/HD Kids In The Classroom?



What Can I Do In The Classroom with AD/HD Kids?

- **Immediate Intense Rewards & Change Them Often**
- **Provide Feedback, “at the point of performance!”**
- **Provide External Memory Prompts: PDA’s, Watchminder-2 Watch, Motivators, Digital Audio Recorders: www.addwarehouse.com**
- **Use a token economy with the student**

Author (2006). CHADD Educator’s Manual. Landover, MD: CHADD.

What Can I Do with AD/HD Kids in The Classroom?

- **Provide Increased Supervision: 30% Rule**
- **Assign a case manager**
- **Use Daily Report Cards**
- **Directly Teach:**
 - **Problem Solving, Time Management, Organizational Skills, Anger Management, Conflict resolution, Decision Making Skills**

Author (2006). CHADD Educator's Manual. Landover, MD: CHADD.

What Can I Do With AD/HD Kids In The Classroom?

- **Group Reward System: When the class finishes its project everyone is rewarded.**
- **Use peer mediated reinforcement.**
- **Contract in writing with the student that includes parents/guardians.**
- **Avoid Humiliation!**
- **Give Students Choices, but only two or three.**

Author (2006). CHADD Educator's Manual. Landover, MD: CHADD.

What Can I Do With AD/HD Kids In The Classroom?

- **Eliminate Criticism and Blame**
- **Give “I” Messages**
- **Use “Time-In” To Learn Pro-social Skills Instead Of “Time-Out”**
- **Directly Them to Self-Advocate:**
 - **Teach them about their disorder, how they manifest it, why they take medication, how to ask for help, what their “rights are”, etc.**

Author (2006). CHADD Educator’s Manual. Landover, MD: CHADD.

Negative Consequences

- **Make sure the child receive at least 2 rewards for each consequence.**
- Ignoring bad behavior
- Reprimands
- Fines of tokens
- Time Ins instead of Time Outs...Do a Task
- In school suspension

Barkley, R. A. (2008). Classroom Accommodations for Children with ADHD. The ADHD Report, 16(4), 7-10.

Side Bar: Ignoring Bad Behavior

- Ignoring is a mild form of ostracizing.
- “No matter how people are left out their response is swift and powerful, inducing a social agony that the brain registers as physical pain.” (p. 32)
- “All social animals use this form of group rejection to get rid of burdensome group members. In nonhuman animals, an unaccepted member usually ends up dead.

Williams, K.D. (January/February, 2011). The Pain of Exclusion. Scientific American Mind, 21 (6), 30-37.

Homework

- **“Reduce/eliminate homework for elementary kids...If homework is given, keep it to 10 minutes total x grade level in school...”**
- **“Decrease the child or teen’s total workload to what is essential to be done rather than what is merely “busy” work assigned to fill class time Give smaller quotas of work at a time with frequent breaks (i.e., 5 problems at a time, not 30, with short breaks between work episodes)”**

Barkley, R.A. (February 22, 2013). ADHD IN Children: Diagnosis and Treatment. Poway, CA: ContinuingEdCourse.net. From website: <http://www.continuingedcourses.net/active/courses/course004.php>.

COLOR CODE EVERYTHING



Classroom Stop Light

- **Stop light picture in front of the room.**
 - When the light is **RED**...Be quiet; lecture
 - When the light is **YELLOW**...Desk work
 - When the light is **GREEN**...Free play

Barkley, R. A. (2008). Classroom Accommodations for Children with ADHD. The ADHD Report, 16(4), 7-10.



Other Ideas

- **“Place laminated, color-coded card sets on desks with a set of rules for each subject or class activity” (p. 10).**
- **Have child state rules out loud prior to beginning each task**
- **Use the “Turtle Technique”**

Barkley, R. A. (2008). Classroom Accommodations for Children with ADHD. The ADHD Report, 16(4), 7-10.

Other Ideas

- **One set of books at home & identical set at school**
- **Have consistent classroom routine.**
 - **If routine is to change prepare the child long before**
- **Use “classic” classroom seating arrangement**
- **Seat child with AD/HD close to teacher’s desk, least distracting area, etc.**
- **All non-disruptive movement**
 - **“I Have a kinesthetic learning style.”**
- **Offer increased feedback**
- **Pair a desirable task with an undesirable one**
- **When speaking to child touch them on the hand, arm or shoulder to get their attention**

Other Idea: Daily Report Card

“A new card is taken to school every day or is given to the child or teen by their first period or home room teacher. The child is to be rated at the end of each class period using the numbered columns below (one per class) as to how they did in the five areas of school performance... Teachers are to use ratings of 1 (excellent), 2 (good), 3 (fair), 4 (poor), 5 (terrible). Each teacher initials the bottom box below their column to protect against forgery. The card can be reviewed with the teen by a school staff member and points can be assigned to each rating for use in buying extra privileges at school. Or, the card can be reviewed by parents at home and the ratings converted to points to be used in purchasing home privileges. Wherever the points are to be awarded (home or school), a menu of possible rewards should be created”.

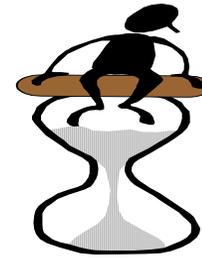
Barkley, R.A. (February 22, 2013). *ADHD IN Children: Diagnosis and Treatment*. Poway, CA: ContinuingEdCourse.net.
From website: <http://www.continuingcourses.net/active/courses/course004.php>.

Other ideas

- **Post the next week's homework assignments and special events (changes in schedule, etc.) on the web so parents can see.**
- **Assignment notebook to be signed by parent and student**

“Egg Timers”

- **Place a timer on the child’s desk to give them an external representation of time.**



Gordon Attention Training System

This rewards the child every minute with a point. If the teacher notices the child is off task he/she can take a point away by remote control. Research has shown this works well with AD/HD children on medication.

http://addwarehouse.com/shopsite_sc/store/html/attention-training-system-starter-package.html



The 3 Rs and AD/HD



Other Ideas: Mathematics

- **Have students use graph paper to organize columns of numbers**
- **Use music to increase effort to memorize math facts (Math Rap Tapes, SRA Technology Training Co., 155 North Wacker Drive, Chicago, IL 60606, RocknLearn- <http://www.rocknlearn.com>, etc.).**
- **Khan Academy: <https://www.khanacademy.org/>**

Other Ideas: Mathematics

- **Use visual models of math concepts**
- **Teach mnemonic techniques**
- **Use math review software for drill**
- **Use calculators**

Mather, N. and Goldstein, S. (2001). Learning Disabilities and Challenging Behaviors: A Guide to Intervention and Classroom Management. Baltimore, MD: Brookes.

Other Ideas: Written language

- **Use graphic organizers**
- **Untimed writing assignments with periodic “check-ins”**
- **Hands-on project credit**
- **Use helpful software**
- **Franklin Spellers, etc.**
- **Give two grades: one for content and one for spelling, grammar, etc.**

Mather, N. and Goldstein, S. (2001). Learning Disabilities and Challenging Behaviors: A Guide to Intervention and Classroom Management. Baltimore, MD: Brookes.

Other Ideas: Reading

- **See Appendix of this manual.**



Extended Time



Extended Time & ADHD



“Allowing extended time for adolescents with ADHD to complete tests involving reading may help to compensate for their impairments of working memory and processing speed, allowing them to score closer to their actual verbal abilities” (p. 79).

Brown, T.E., Reichel, P.C. and Quinlan, D. M. (September, 2011). Extended Time Improves Reading Comprehension Test Scores For Adolescents with ADHD. Open Journal of Psychiatry. 1, 79-87. From website: <http://www.addrc.org/wp-content/uploads/2011/11/OJP.RdgArticle.2011.pdf>.

Extended Time & AD/HD



“The findings suggest that students with ADHD tend to perform more slowly and less accurately than controls under standard time constraints, and show no "differential boost" or gain under extended time conditions. The results raise questions about the fairness, appropriateness, and validity of extended time accommodations.”

Parolin, R. (2006). The Effects of Extended Time On Mathematics Performance of Students With and Without Attention Deficit Hyperactivity Disorder. Doctoral dissertation, Syracuse University. From website: http://surface.syr.edu/psy_etd/30/.

Academic Accommodations and AD/HD



EXTENDED TIME

- 1. Probably most used accommodation under ADA**
- 2. Good for slow processing speed and poor working memory**
- 3. Also good for problems with reading comprehension when rereading is necessitated.**
- 4. Good when speed is not a prerequisite**

Brown, T.E. (2000). Psychosocial interventions for Attention-Deficit Disorders and Comorbid Conditions. In T.E. Brown (Ed.), Attention-Deficit Disorders and Comorbidities In Children, Adolescents, and Adults. Washington, DC: American Psychiatric Press, pp. 537-568.)



Barkley on Extended Time for AD/HD

“Don’t give extra time on timed tests – no evidence it helps ADHD cases specifically; better to have distraction free test setting and employ time off the clock. This involves using a stopwatch placed on the students desk. They are permitted the same length of time “on the clock” for testing as other students. But at any time they can stop the stopwatch, take a brief break (minute or two of stretching, getting a drink of water, etc.), after which they return to the test and restart the stop watch. They can do this as often as they feel a need to do so during the test”.

**Barkley, R.A. (February 22, 2013). ADHD IN Children: Diagnosis and Treatment. Poway, CA: ContinuingEdCourse.net. From website:
<http://www.continuingedcourses.net/active/courses/course004.php>.**

AD/HD Teens In The Classroom



Students Over Age 13

➤ **Use written behavioral contracting**
If you do this I will do this...

➤ **Work out a correction signal**

“If I drop a pencil in front of you it a signal to you to shape up.” One chance.

➤ **Get them an in school coach to work with ever day**

➤ **Extra set of books at home**



Students Over the Age of 13

- **Daily report cards**
- **Give copy of PowerPoint/notes and audio-recorded lectures**
- **Give parents syllabus**
- **Use study-buddies**
- **Bucks-for-Bs**
- **Teach them about their disorder and how to self-advocate**



Barkley, R.A. (February 22, 2013). ADHD IN Children: Diagnosis and Treatment. Poway, CA: ContinuingEdCourse.net. From website:
<http://www.continuingcourses.net/active/courses/course004.php>.

Treating Memory Problems



Richard Abby on Working Memory

➤ Things that disrupt Working Memory:

- Background noise
- Distraction
- Switching Attention
- Too much information to encode by rote
- Too much mental manipulation required to retain information
- Never encoding it into Long-Term Memory

➤ What helps Working Memory:

- Silent environment
- White noise
- Repeat over and over by rote
- Associating it with something in Long-term memory
- Rhyming, Mnemonics, chunking.

Abby, R., et al (October 27, 2010). Working Memory, Learning and Interventions. Paper presented at the 61st Annual International Dyslexia Association Conference, Phoenix, AZ, Session Symposium W1; Working Memory and Learning The Critical Link.

Memory and Testing

“...testing improves memory by strengthening keyword associations and weeding out clues that do not work.” (p. 13)

Anderson, A. (January/February, 2011). Why Testing Boosts Memory. Scientific American Mind, 21 (6), 13.

Self-Imagining for Better Memory

“Recent research has demonstrated that self-referential strategies can be applied to improve memory in memory-impaired populations. However, little is known regarding the mnemonic mechanisms and relative effectiveness of self-referential strategies in memory-impaired individuals. This study investigated the benefit of a new self-referential strategy known as *self-imagination*, traditional self-referential strategies, and non-self-referential strategies on free recall in memory-impaired patients with acquired brain injury and in healthy control respondents. The data revealed an advantage of self-imagining in free recall...”

Self-Imagining for Better Memory

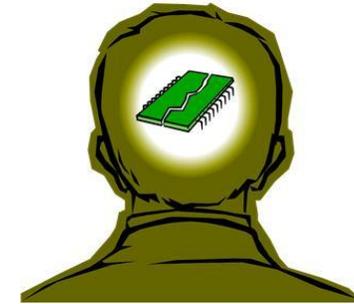
“...relative to all other strategies in patients and control respondents. Findings also demonstrated that, in the patients only, a self-referential strategy that relied on semantic information in self-knowledge was more effective than a self-referential strategy that relied on autobiographical episodic information. This study provides new evidence to support the clinical utility of self-imagining as a memory strategy and has implications for the future development and implementation of self-referential strategies in memory rehabilitation”. (p. 1)

➤ **“Try to imagine you are acting out this personality trait.” (p. 3)**

Grilli, M.D., and Glisk, E.L. (August 5, 2012). Imagining a Better Memory: Self-Imagination in Memory-Impaired Patients. *Clinical Psychological Science*, 20(10), 1-7. From website: <http://cpx.sagepub.com/content/early/2012/10/02/2167702612456464.full.pdf+html>.

Treatments For Memory Disorders

- Mnemonics-memory tricks
- Diaries and Social Statements
- Technology-Watchminder Watch II, etc.-
www.addwarehouse.com, etc.
- Check for sleep disorders.*
- Nootropic Medications



Nosek, K. (1997). Dyslexia in Adults: Taking Charge of Your Life. Dallas, TX: Taylor.

Smith, L. and Godfrey, H.D.P. (1995). Family Support Programs Rehabilitation: A Cognitive-Behavioral Approach to Traumatic Brain Injury. New York, NY: Plenum.

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

*Fawcett, A.J. (October 29, 2010). Dyslexia, Dysgraphia and Procedural Learning Deficit. Paper Presented at the 61st Annual International Dyslexia Association Conference, Phoenix, AZ (October 27-30, 2010), Session F5.

Goldstein, S. and Goldstein, M. (1997). Drugs Affecting Learning, Attention, and Memory. In S. Goldstein (Ed.), Managing Attention and Learning in Late Adolescence & Adulthood: A Guide for Practitioners. New York, NY: John Wiley & Sons, pp. 327-373.

Good Resources for Mnemonic Techniques



- www.doctormemory.com
- **Doctor memory**
- **Lucas, J. and Lorayne, H. (1974). The Memory Book. New York, NY: Ballantine.**

Technology for Memory Difficulties

- **Watchminder 2**
 - **Vibrates to remind student of deadlines**
 - **It can remind them to check to see if they are “on task.”**

Available from:

www.watchminder.com/



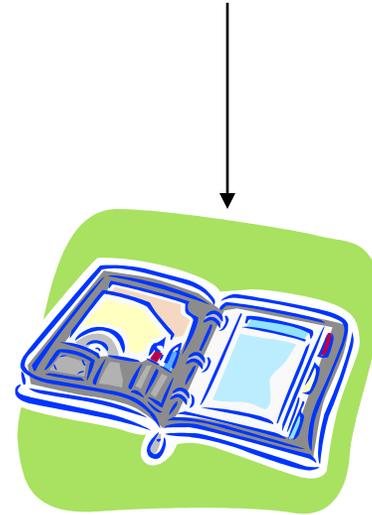
Technology for Memory Difficulties

- Record lectures with a digital recorder
- “Parent Nag Tapes”
 - Parent says, “are you on task?”
Best if use father’s voice.
- Classroom “Beep Recordings”
 - Every time the child hears beep asks self if on task. If not gets on task.
- Available from:
 - Walmart
 - Best Buy
 - Staples, etc.



Technology for Memory Difficulties

- **Smart Phone, iPhone, Android, etc.**
- **Time Management Organizer**
www.FranklinCovey.com



Technology for Memory Difficulties

- **Brookstone Wireless Keyfinder:**

www.brookstone.com/Wireless-Key-Finder.html



Good Book on Treating Memory Problems

Dornbush, M.P. and Pruitt, S.K. (2009). Tigers, Too: Executive Functions/Speed of Processing/Memory-Impact on Academic, Behavioral and Social Functioning of Students with ADHD, Tourette Syndrome and OCD: Modifications and Interventions. Atlanta, GA: Parkaire.

Exercise & ADHD



Exercise and AD/HD

“Following a single 20-minute bout of exercise, both children with ADHD and healthy match control children exhibited greater response accuracy and stimulus-related processing, with the children with ADHD also exhibiting selective enhancements in regulatory processes, compared with after a similar duration of seated reading. In addition, greater performance in the areas of reading and arithmetic were observed following exercise in both groups...These findings indicate that single bouts of moderately intense aerobic exercise may have positive implications for aspects of neurocognitive function and inhibitory control in children with ADHD” (p. 543).

Reference

Pontifex, M.B., Saliba, B.J., Raine, L.B., Picchetti, D.L. , and Hillman, C.H. (March, 2013). Exercise Improves Behavioral, Neurocognitive, and Scholastic Performance in Children with Attention-Deficit/Hyperactivity Disorder. Journal of Pediatrics, 162(3), 543-551. From website: [http://www.jpeds.com/article/S0022-3476\(12\)00994-8/abstract](http://www.jpeds.com/article/S0022-3476(12)00994-8/abstract).

Exercise & AD/HD



“Researchers haven’t quantified how long the spike in dopamine and norepinephrine lasts after exercise, but anecdotal evidence an hour or maybe ninety minutes of calm and clarity. I tell people who need medication to take it at the point when the effects of exercise are wearing off, to get the most benefit from both approaches” (pp. 166-166).

Ratey, J. (2008). Spark: The Revolutionary New Science of Exercise and The Brain. New York, NY: Little, Brown.

Good Resources on Exercise and Counseling



- **Ratey, J.J. (Fall, 2010). Your Brain On Exercise. ADDitude, 11 (1), 36-39.**
- **Ratey, J.J. (2008). Spark: The Revolutionary New Science of Exercise and The Brain. New York, NY: Little, Brown.**
- ✓ **Always consult a physician before starting an exercise program!**

Exercise Suggestions for AD/HD

- **Have children with ADHD take their toughest classes in the morning after aerobic exercise.**
- **After tough class take fun/easier class.**
- **If they have a choice to cram 20 extra minutes for an exam or exercise 20 minutes it would be better to exercise.**



Naperville Central High School Exercise Program

➤ **See description of this in chapter 1, Welcome to the Revolution: A Case Study On Exercise and The Brain, in the following book:**

Ratey, J.J. (2008). Spark: The Revolutionary New Science of Exercise and The Brain. New York, NY: Little, Brown.

AD/HD & Dogs



Dogs & Autism

“In the presence of the dog, the participant exhibited more frequent and longer durations of positive behaviors (such as smiling and positive physical contacting) as well as less frequent and shorter durations of negative behaviors (such as aggressive manifestations)...”

Dogs & Autism

“...These findings are in accordance with previous experimental work and provide additional support for the assertion that dogs can prime autistic children for therapy. Ultimately, this study may contribute toward a change for full acceptance of canine-assisted therapy programs within the medical milieu. Additional studies using a similar research protocol on more autistic children will certainly help professionals to work on the most effective methods to individually serve this population through canine-assisted interventions” (p. 655).

Reference

Silva, K. et al (July, 2011). Can Dogs Prime Autistic Children for Therapy? Evidence from a Single Case Study. Journal of Alternative and Complimentary Medicine, 17(7), 655-659. From website: <http://online.liebertpub.com/doi/abs/10.1089/acm.2010.0436>.

Dogs and AD/HD

Dr. Sabrina Schuck of University of California Irvine is conducting a \$2,200,000.00 study into the use of therapy dogs with AD/HD children. None of the children in the study are on medications for their AD/HD. Preliminary results indicate the children with contact with the dogs are calmer and more engaged in activities than those who have no contact with the dogs.

Wallace, R. (February 28, 2012). Canines Contribute to Health. New University. From website: <http://www.newuniversity.org/2012/02/news/canines-contribute-to-health/>.

*AD/HD,
Inattentive
DSM-5 &
“Crichton
Syndrome”*



DSM-5 AD/HD as of May 1, 2012

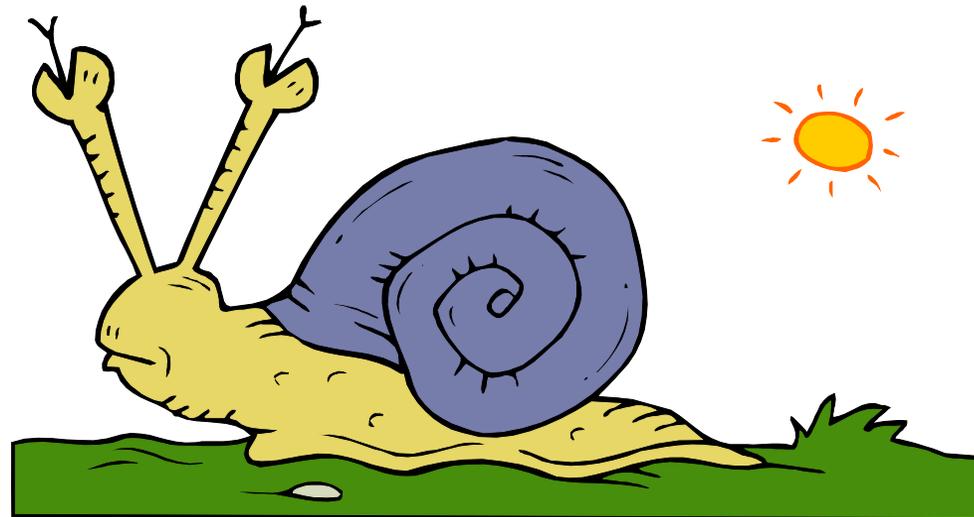
- **Attention-Deficit/Hyperactivity Disorder:**
- **Specify based on current presentation-**
 - **Combined Presentation**
 - **Predominately Inattentive Presentation**
 - **Predominately Hyperactive/Impulsive Presentation**
 - **Inattentive Presentation (Restrictive)**
 - **Other Specified Attention-Deficit Hyperactivity Disorder**

DSM-5 AD/HD as of May 1, 2012

- **Need to have symptoms prior to age 12**
- **22 symptoms; Up from 18**
- **9 symptoms Inattention: Need 6; May need only 4 over age 17**
- **13 symptoms of Hyperactivity/Impulsivity: Need 6; May need only 4 over age 17**
- **Inattentive Presentation (Restrictive): Must meet Inattentive criteria and have no more than 2 Hyperactive/Impulsive Symptoms**

Attention-Deficit/Hyperactivity Disorder, Inattentive Presentation (Restrictive)

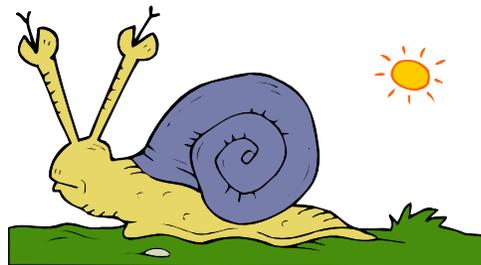
- **Brown believes the Inattentive Type has all the symptoms of the Combined Type except Hyperactivity-Impulsivity**



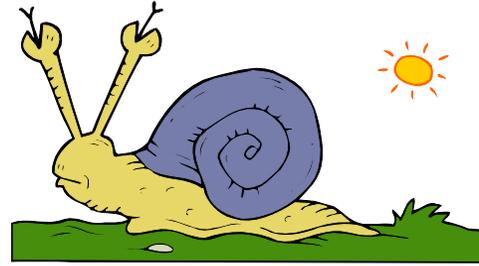
Inattentive AD/HD (Continued)

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.

Inattentive AD/HD (Continued)

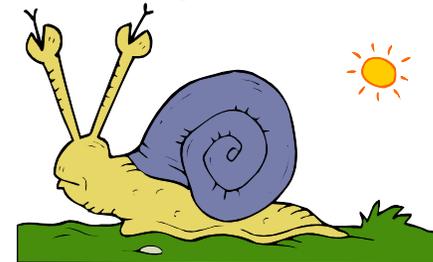
Brown (2005) continued the only difference between Inattentive AD/HD and Combined Type AD/HD was “ACTION”. Those with Combined Type AD/HD have significant impairment with ACTION, which is being able to predict with reasonable accuracy how their personal actions could negatively effect others and how that could come back to haunt them in the future. They have time blindness. Those with Inattentive AD/HD do not have time blindness.

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.

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.



Barkley's 2013 SCT Symptoms

- **Daydreaming excessively**
- **Trouble staying alert or awake in boring situations**
- **Easily confused**
- **Spacey or “in a fog”; Mind seems to be elsewhere**
- **Stares a lot**
- **Lethargic, more tired than others**
- **Underactive or have less energy than others**
- **Slow moving or sluggish**
- **Doesn't seem to understand or process information as quickly or accurately as others**

Barkley's 2013 SCT Symptoms Continued

- **Apathetic or withdrawn; less engaged in activities**
- **Gets lost in thought**
- **Slow to complete tasks; needs more time than others**
- **Lacks initiative to complete work or effort fades quickly**

Barkley, R. A. (November 9, 2012). The Other Attention Disorder: Sluggish Cognitive Tempo (ADD/SCT) Vs. ADHD—Impairment and Management. Paper presented at the 24th Annual CHADD International Conference on ADHD, Burlingame, CA, November 8 – 10, 2012.

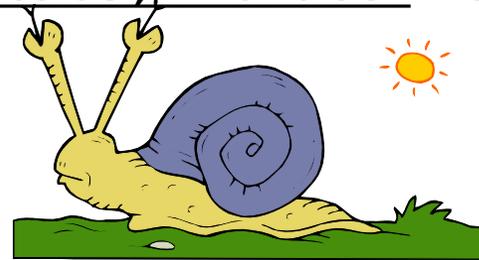


Mild Combined Type vs. Inattentive Type/SCT

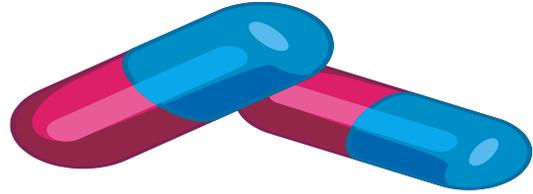
30% to 50% of those with Inattentive AD/HD have the Sluggish Cognitive Tempo (SCT) subtype. The remainder are Shadow Syndrome (Mild) Combined Type.

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.

Barkley, R.A. (2006). Attention-Deficit Hyperactivity Disorder, Third Edition. New York, NY: Guilford, p. 37.



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.

Barkley, R.A. (2006). Attention-Deficit Hyperactivity Disorder, Third Edition. New York, NY: Guilford, p. 202.

Ramsay, R. (2010). Nonmedication Treatments for Adult ADHD. Washington, DC: American Psychological Association Press, p. 15.

CHADD Conference November, 2012

Barkley (November 9, 2012) stated the ADHD and Disruptive Behavior Disorders Workgroup of the DSM-5 had decided in October not to include Attention-Deficit/Hyperactivity Disorder, Inattentive Presentation (Restrictive) in the manual's revision. He also mentioned the committee will probably not have adult norms and cutoffs for AD/HD...

CHADD Conference 2012

Barkley (November 9, 2012) continued that the DSM-5 committees had been told by a large group of health insurance companies, the Administration, the Department of Health and Human Services as well as the Social Security Administration not to add new disorders or do anything that would increase the prevalence of disorders. Hence, the decisions of the previous slide.

CHADD Conference, 2012

At the end of Barkley's SCT seminar there was a lively discussion about what to call SCT. Focused Attention Disorder (FAD) was suggested. But people did not like the acronym FAD, implying the disorder is a passing fad. Sluggish Cognitive Tempo, Developmental Concentration Disorder, Atypical AD/HD, Pathological Mind Wandering among others were considered, but none of these were thought to convey the true nature of the disorder and/or to be pejorative. Hence, they did not arrive at a name.

CHADD Conference, 2012

Barkley, R. A. (November 9, 2012) The Other Attention Disorder: Sluggish Cognitive Tempo (ADD/SCT) Vs. ADHD– Impairment, and Management. Paper presented at the 24th Annual CHADD International Conference on ADHD, Burlingame, CA, November 8 – 10, 2012.

Author (May 1, 2012) Attention Deficit/Hyperactivity Disorder- Rationale: Rationale for Changes in ADHD in DSM-5 From the ADHD and Disruptive Behavior Disorders Workgroup. From website: <http://www.dsm5.org/ProposedRevision/Pages/proposedrevision.aspx?rid=383#>.

CHADD Conference, Martha Denckla, and Sluggish Cognitive Tempo

- **During the question and answers portion of her keynote address I asked Dr. Denckla for her insights into SCT.**
- **She said she believes SCT exists and it is a form of extremely slow processing that is often found to be associated with AD/HD. These people have extremely slow response times. They are starting to perform electrophysiology studies of SCT because fMRI is too slow.**

Denckla, M.B. (November 10, 2012). Closing Keynote: Understanding the Neurobiological Basis of ADHD: 25 Years of Innovation in Research. Paper presented at the 24th Annual CHADD international Conference, Burlingame, CA; November 8-10, 2012.

The Two Dimensions of SCT

- **Sluggishness/Lethargy**
- **Daydreaming**
 - These are correlated to each other .40 to .50
- **SCT is as common in males as in females**
- **Symptoms and severity are stable throughout life. Prevalence in children 4.7%; in adults 5.1%**

Barkley, R. A. (November 9, 2012). The Other Attention Disorder: Sluggish Cognitive Tempo (ADD/SCT) Vs. ADHD— Impairment, and Management. Paper presented at the 24th Annual CHADD International Conference on ADHD, Burlingame, CA, November 8 – 10, 2012.

SCT Age of Onset

The average age of onset for SCT is 8 to 10 years old. Two to 3 years older than those with AD/HD.

Barkley, R. A. (November 9, 2012). The Other Attention Disorder: Sluggish Cognitive Tempo (ADD/SCT) Vs. ADHD– Impairment and Management. Paper presented at the 24th Annual CHADD International Conference on ADHD, Burlingame, CA, November 8 – 10, 2012.

Processing Speed: SCT Vs ADHD

- **The processing speed difficulties for those with SCT is related to slow response time and processing. They are prone to error on speeded tasks.**
- **The processing speed difficulties for those with AD/HD is related to variability in reaction time which is 3 times more than those without AD/HD.**

Barkley, R. A. (November 9, 2012). The Other Attention Disorder: Sluggish Cognitive Tempo (ADD/SCT) Vs. ADHD– Impairment and Management. Paper presented at the 24th Annual CHADD International Conference on ADHD, Burlingame, CA, November 8 – 10, 2012.

Executive Function and SCT

- **Barkley (2012) found those with SCT have no problems with Executive Functions whereas those with AD/HD have it in all areas.**
- **The only area of impairment SCT children have that is more severe than those with AD/HD is in sports. AD/HD children are more impaired in all other areas.**
- **Those with ADHD and comorbid SCT are the most impaired overall.**
- **About 50% with AD/HD have comorbid SCT**

Barkley, R. A. (November 9, 2012). The Other Attention Disorder: Sluggish Cognitive Tempo (ADD/SCT) Vs. ADHD— Impairment and Management. Paper presented at the 24th Annual CHADD International Conference on ADHD, Burlingame, CA, November 8 – 10, 2012.

Causes of SCT (Continued)

SCT appears to be highly heritable.

Barkley, R. A. (November 9, 2012). The Other Attention Disorder: Sluggish Cognitive Tempo (ADD/SCT) Vs. ADHD– Impairment and Management. Paper presented at the 24th Annual CHADD International Conference on ADHD, Burlingame, CA, November 8 – 10, 2012.

Causes of SCT(Continued)

- **SCT may be a form of hypoarousal almost like narcolepsy.**
- **It may be a dysfunction of the orientation-action attention network at the back of the brain.**
- **It may be related to an anxiety disorder. Anxiety Disorders are highly comorbid with SCT.**

Barkley, R. A. (November 9, 2012). The Other Attention Disorder: Sluggish Cognitive Tempo (ADD/SCT) Vs. ADHD– Impairment and Management. Paper presented at the 24th Annual CHADD International Conference on ADHD, Burlingame, CA, November 8 – 10, 2012.

New Treatments for SCT

“Behavioral psychosocial treatment, when specifically adapted for ADHD-I and coordinated among parents, teachers and children, appears efficacious in reducing symptoms and impairment associated with ADHD-I.” (p. 1041)

Pfiffner, L.J., Mikami, A.Y., Huang-Polloock, C., Easterlin, B., Zalecki, C. and MCBurnett, K. (August, 2007). A Randomized Controlled Trial of Integrated Home-School Behavioral Treatment for ADHD, Predominately Inattentive Type. Journal of the American Academy of Child and Adolescent Psychiatry, 46(8), 1041-1050. From website: [http://www.jaacap.com/article/S0890-8567\(09\)61554-9/abstract](http://www.jaacap.com/article/S0890-8567(09)61554-9/abstract).

Accommodating SCT in School

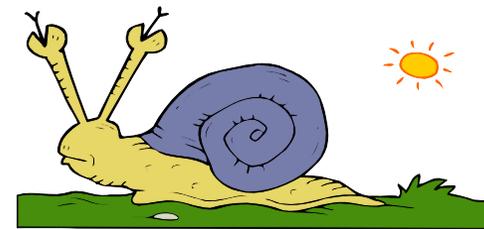
- Behavioral interventions that focus on noncompetitive external rewards for meeting specific goals.
- Extended time to address slow processing speed.
- Social skills training in groups without conduct disordered kids. SCT kids benefit from social training.
- About 60 % have comorbid LD. Treat comorbidities.
- 25-50% of AD/HD kids have LD.

Barkley, R.A. (2006). Attention-Deficit Hyperactivity Disorder. New York, NY: Guilford, p. 552.

Barkley, R.A. (2008). Advances in ADHD: Theory, Diagnosis and Management. J & K Seminars, L.L.C., 1861 Wichersham Lane, Lancaster, PA 17603; 800-801-5415; www.jkseminars.com.

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

Conference, Atlanta, GA, November 16.



Accommodating SCT in School

SCT children experience significantly more anxiety than children with other types of AD/HD. They may respond better to behavioral treatments that focus on reducing their anxiety.

Ramsay, R. (2010). Nonmedication Treatments for Adult ADHD. Washington, DC: American Psychological Association Press, p. 15.

SCT is NOT new!

**Alexander
Crichton may have
written about
what we call SCT
in 1798!**



Crichton, A. (2008). An inquiry into the nature and origin of mental derangement: On attention and its diseases. Journal of Attention Disorders, 12, 200-204 (Original work published 1798).

Barkley, R. A. (November 9, 2012). The Other Attention Disorder: Sluggish Cognitive Tempo (ADD/SCT) Vs. ADHD– Impairment and Management. Paper presented at the 24th Annual CHADD International Conference on ADHD, Burlingame, CA, November 8 – 10, 2012.

Crichton Syndrome

I wrote Barkley on Monday (November 12, 2012) and suggested the name, “Crichton Syndrome” for SCT. The name does not suggest the cause, because we currently do not know it, it gives Andrew Crichton credit for first observing it and it demonstrates how long we have known about it. In addition it is not pejorative and by using the word syndrome it indicates we don’t know much about it, but it merits more study.

Crichton Syndrome

Barkley (November 13, 2012) responded he liked the name and would re-examine Crichton's work to make absolutely sure he merits credit for the "discovery." So stay tuned Sluggish Cognitive Tempo MAY become "Crichton Syndrome."

New Articles on “*Crichton Syndrome*”

Bauermeister, J.J., Barkley, R.A., Bauermeister, J.A., Martinez, J.V. and McBurnett (December 17, 2011-Published online). Validity of the Sluggish Cognitive Tempo, Inattention, and Hyperactivity Symptom Dimensions: Neuropsychological and Psychosocial Correlates. Journal of Abnormal Child Psychology, DOI 10.1007/s10802-011-9602-7.

Barkley, R. A. (2011, May 23). Distinguishing Sluggish Cognitive Tempo From Attention-Deficit/Hyperactivity Disorder in Adults. Journal of Abnormal Psychology. Advance online publication. DOI: 10.1037/a0023961.

Russell A. Barkley (October 24, 2012): Distinguishing Sluggish Cognitive Tempo From ADHD in Children and Adolescents: Executive Functioning, Impairment and Comorbidity, Journal of Clinical Child & Adolescent Psychology, DOI:10.1080/15374416.2012.734259.

Book References

References About Children and Teens with AD/HD

Barkley, R.A. (2013) . Taking Charge of ADHD: The Complete Authoritative Guide for Parents, Third Edition

New York, NY: Guilford

Quinn, P.O. and Stern, J.M. (2012). On The Breaks: Understanding and Taking Control of Your ADD or ADHD, Third Edition

Washington, DC: American Psychological Association.

Quinn, P. and Maitland, T.L. (2011). On Your Own: A College Readiness Guide for Teens with ADHD/LD

Silver Spring, MD: ADDvance.

References about Childhood AD/HD and Classroom Management

Jensen, P.S. (2004). Making The System Work For Your Child With ADHD

New York, NY: Guilford.

Mather, N., and Goldstein, S. (2001). Learning Disabilities and Challenging Behaviors: A Guide to Intervention and Classroom Management. Baltimore, MD: Brookes.

Triadas, E.Q. (2007). From ABC To ADHD: What Parents Should Know About Dyslexia and Attention Problems. Baltimore, MD: International Dyslexia Association.

Other Helpful AD/HD References

Snyder, J.M. (2001). AD/HD & Driving: A Guide for Parents of Teens with ADHD

Whitefish, MT: Whitefish Consultants.

Snyder, J.M. (2001). The Misunderstood Child, Fourth Edition

Silver, L. (June 27, 2006). New York, NY: Random House.

Nadeau, K.G., Littman, E.B. and Quinn, P.O. (2000). Understanding Girls with AD/HD

Silver Spring, MD: ADDvance

Excellent Books ON Classroom Management With AD/HD Kids

Author (2005). The New CHADD Information and Resource Guide for AD/HD. Landover, MD: CHADD.

Author (2006). CHADD Educator's Manual. Landover, MD: CHADD.

Available from: www.chadd.org



Great Book On How To Teach AD/HD Children

Zentall, S. (2006). ADHD and Education: Foundations, Characteristics, Methods, and Collaborations. New York, NY: Merrill.



Good Books On Classroom Management for AD/HD

DuPaul, G. J. and Stoner, G. (2004). ADHD In The Schools: Assessment and Intervention Strategies, Second Edition

New York, NY: Guilford.

Reid, R. and Johnson, J. (2011). A Teacher's Guide To ADHD

New York, NY: Guilford.

Goldstein, S. and Mather, N. (1998). Overcoming Underachievement: An Action Guide to Helping Your Child Succeed in School

New York, NY: Wiley.

Good Book On The Use of Token Economies with AD/HD Children

Barkley, R.A. (2013). Defiant Children: A Clinicians Manual for Assessment and Parent Training, Third Edition. New York, New York: Guilford.