Treating Severe Behavioral Deficits in Children with Traumatic Brain Injury or Autism

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New DSM5 Diagnostic Criteria for Autism

New DSM5 Diagnostic Criteria for Autism

- Major changes
  - Change from multiple diagnostic categories to one- Autism Spectrum Disorder
  - Shift from 3 major symptom categories (social/ language/ behavior) to 2 (social communication and restrictive repetitive behavior)
  - Shift from 12 to 7 symptoms
  - Requirement for all 3 social communication and 2 of 4 restrictive repetitive behavior symptoms
  - Inclusion of specifiers (eg. with or without intellectual disability, with or without language impairment)
  - Inclusion of severity rating indicating level of support needed

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New DSM5 Diagnostic Criteria for Autism

- Children previously diagnosed with Autistic Disorder, Pervasive Developmental Disorder- Not Otherwise Specified (PDD-NOS), Asperger's Disorder, and Childhood Disintegrative Disorder should all qualify as having "Autism Spectrum Disorder"
  - Therefore kids previously diagnosed with autism should not "lose" their diagnosis
  - Kids who may have previously been diagnosed as being on the spectrum may no longer qualify

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New DSM5 Diagnostic Criteria for Autism

- Major changes (continued)
  - The new criteria allow for the dual diagnosis of ADHD and ASD
  - There is concern that fewer children will be diagnosed
  - There is also concern that children will not be diagnosed until later and will therefore not receive therapy "early enough"
    - One study showed that only 35% of children diagnosed with an ASD before age 3 using DSM-IV criteria would be given the diagnosis using DSM-5 criteria

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New DSM5 Diagnostic Criteria for Autism

- Major changes (continued)
  - Social (pragmatic) communication disorder
    - A new diagnosis
    - Not on the ASD spectrum
    - Includes children who have specific difficulties in the use of verbal and nonverbal communication that impairs their interpersonal relationships and social comprehension
    - Some children previously diagnosed with PDD-NOS or Asperger's may better fit this diagnosis

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New DSM5 Diagnostic Criteria for Autism

- Social-communication criteria (Must meet all 3)
  - Deficits in social-emotional reciprocity
  - Deficits in nonverbal communicative behaviors used for social interaction
  - Deficits in developing and maintaining relationships and adjusting behavior to social contexts appropriate to developmental level

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New DSM5 Diagnostic Criteria for Autism

- Restrictive/ repetitive patterns of behavior, interests, or activities (must have at least 2 of 4)
  - Stereotyped or repetitive speech, motor movements, or use of objects
  - Excessive adherence to routines or ritualized patterns of verbal or nonverbal behavior
  - Highly restricted fixated interests that are abnormal in intensity or focus
  - Hyper- or hyporeactivity to sensory input or unusual interest in sensory aspects of the environment

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New DSM5 Diagnostic Criteria for Autism

- The bottom line is that if a child appears to meet the DSM5 criteria, they should undergo a multidisciplinary evaluation at a specialty center
  - This is critical to improve specificity
- Reference for these slides;
  - Halfon Neal, Kuo Alice A **What DSM-5 Could Mean to Children With Autism and Their Families JAMA pediatrics, 2013; 1-6.**

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Medications/ Pharmacotherapy

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Basic rules of pharmacotherapy in children with autism/ TBI

- There are thousands of rules!
- There are no rules!
- Children with autism/ TBI may respond to medications in a manner that is completely the opposite of what is expected
- If one medication does not work, don't abandon that medication class entirely
  - A child may react adversely to one formulation of a med, and respond favorably to a different form of the same med
- START LOW, GO SLOW!!!!

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ADHD Meds- Generalities

- Stimulants are more effective than non-stimulants
  - No one med is the "best" however
- Side effects of all stimulants are all the same
  - Exception: Daytrana can cause a rash
- Insurance companies will balk at prescribing below 6 yrs
- Swallowing a pill is not required for Metadate CD, Focalin XR, Daytrana, Adderall XR, Vyvanse, Quillivant
- Stimulants and non-stimulants can be used together

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ADHD Meds- Longest Acting

- Stimulants
  - Methylphenidate: Concerta (10-11 Hrs), some would argue that Daytrana lasts longer (9+ hours)
  - Amphetamine Salts: Vyvanse (10-12 Hrs)
- Non-stimulants
  - Strattera (Atomoxetine): 24 Hrs
  - Intuniv (Guanfacine): 24 Hrs

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ADHD Meds

- My approach to picking a med
  - First- Are you dead set against trying a stimulant?
    - Yes?- Try a non-stimulant first
  - Second- Can your child swallow a pill?
  - Third- How long does the medication need to last?
    - Always try to give just one pill each day
  - Fourth- Have any relatives ever needed an ADHD med?
    - Like eye color, family members respond to meds similarly
  - Fifth- Narrow the list and let the parent decide

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ADHD Meds- Side Effects

- Common
  - Appetite suppression⇒ weight loss, Sleep difficulty, stomach aches (can be significant with non-stimulants), headaches, mood/ personality changes (seen more often with stimulants), plus daytime sleepiness
- Rare
  - Stimulants: Fatigue, tics, increased heart rate and BP
  - Non-stimulants: Headaches and dizziness (especially in older kids), increased heart rate, weight loss and growth suppression

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ADHD Meds- Helpful Web Sites

- Resources:
  - Cincinnati Childrens' ADHD Center resource on medications
    - http://www.cincinnatichildrens.org/service/j/anderson-center/evidence-based-care/decision-aids/
  - CHADD
    - http://www.chadd.org/Understanding-ADHD/Parents-Caregivers-of-Children-with-ADHD/Evaluation-and-Treatment/ADHDMedicationsAnOverview.aspx

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Selective Serotonin Reuptake Inhibitors- AKA SSRI's

- Can be used to treat depression, anxiety, obsessive compulsive disorder/ tendencies, and tend to make kids more social
- Can be classified as activating or non-activating
- Have a seemingly paradoxical Black Box Warning that they may increase the risk of suicidality
- Very important to follow the "Start Low Go Slow" rule
  - It can take 6 weeks or more to see the maximal effect of a dose change

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SSRI's- Generalities (OK, HUGE GENERALITIES!)

- There are few good Randomized Controlled Trials (RCT's) done in the pediatric autism population
- The 2007 Practice Parameters from the American Academy of Child and Adolescent Psychiatry suggest a trial of discontinuing medication after a positive treatment lasting a year, with reinstitution in the event of relapse (for children diagnosed with anxiety, but not necessarily autistic)
- Generally safe because of their long half life

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SSRI's- Generalities

- Side effects: Nausea, diarrhea, gastrointestinal distress, headaches, lack of energy, sweating, dry mouth, restlessness, initial insomnia, sleepiness, increased hyperactivity, tremor
- Serotonin withdrawal syndrome is of higher risk with paroxetine, and less so with fluoxetine and sertraline
- Some studies/ authors suggest caution in the use of SSRI's in children under the age of 8 due to their possibly altering the development of a child's brain (many neurons seek neurotransmitters in their migration/ development, so altering levels in the brain may affect a child's neuroanatomy in the end)
- SSRI's with FDA approvals (in the typical pediatric population)
  - Fluoxetine and Escitalopram (both for depression)
  - Fluvoxamine (approved for OCD)

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SSRI's

- Activating
  - Prozac (fluoxetine)
- Non-activating
  - Zoloft (sertraline), Paxil (paroxetine), Celexa (citalopram), Lexapro (escitalopram)
- There is conflicting data on this point!

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SSRI's

- Most important point!!
  - WHEN WEANING TITRATE SLOWLY
  - WARN THE PATIENT ABOUT NOT DISCONTINUING THESE MEDICATIONS ON THEIR OWN!!!!!!!!!
- Are we clear? Crystal!

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Atypical Antipsychotics

- Examples: Risperdal (risperidone), Abilify (aripiprazole), Geodon (ziprasidone), Seroquel (quetiapine), Invega (paliperidone), Zyprexa (olanzapine)
- Only Risperdal and Abilify have FDA indications for autism, and that is specifically for irritability
- Cause weight gain- almost a universal rule, very hard to combat, and generally unacceptable to parents

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Resources for SSRI's and Atypical Antipsychotics

- Parents Med Guide
  - http://www.parentsmedguide.org/pmg_depression.html
- American Academy of Child and Adolescent Psychiatry
  - www.aacap.org

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Behavioral Therapies

Behavioral Therapies- Primary Goals

- Gain useful (pragmatic) communication skills and social skills
- Eliminate unwanted behaviors
- Gain the ability to learn
- Gain practical life skills (activities of daily living)
- Learn to generalize lessons learned in order to respond appropriately in different life situations

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Autism Therapies Proven Effective by Randomized Controlled Research Studies

- Research was conducted by the Agency for Healthcare Research and Quality-2011
- Behavioral Therapies
  - UCLA/ Lovaas Model
  - Early Start Denver Model
- Pharmacologic Therapies
  - Abilify (Aripiprazole)
  - Risperdal (Risperidone)

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"Well, I guess we're the control group."

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Applied Behavioral Analysis

- Based on principles of B.F. Skinner, and refined by Ivar Lovaas, Ph. D. in the 1970's
- Uses the ABC principle (Antecedent, Behavior, Consequence)
- The method has been validated by research
- Children using the method show improvement in IQ, language, academic performance, and self-care behaviors

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Applied Behavioral Analysis

- Must be moderated by a specially trained therapist
- Intensive (originally 40 hours/ week, now ? less)
- Also involves a special evaluation called a Functional Behavioral Analysis (FBA)
  - Looks at the antecedents and consequences surrounding a behavior and identifies ways to modify the behavior
- Primarily involves Discrete Trial Training (DTT)
  - Repetitive exposure to an antecedent, with a reward for performance of the desired behavior
- May also use other behavioral techniques

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Early Start Denver Model

- Designed for younger children, even down to 1 year
- Uses play based therapy to teach all developmental skills (cognitive, language, social behavior, imitation, gross/ fine motor, self-help and adaptive behavior)
- Based on principles of ABA
- Uses Pivotal Response Treatment (PRT)
  - This starts with the child performing a behavior that approximates a desired behavior, then rewards that to reinforce it
  - This improves other behaviors: motivation, initiating communication, self-management, etc.

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Early Start Denver Model

- Intensive (20-25 hours of therapy each week)
- More convenient than other therapies, because it is designed to be done in the home or other natural environment
- Also designed to be fun, to encourage the child to desire the interaction and thus become more social
- Parents are the main therapists, and look for "teachable moments"
- Proven to be highly effective by various studies

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Cognitive Behavioral Therapy (CBT)

- Used to treat numerous disorders
- Aims to treat a specific problem behavior, and has a specific desired outcome
- The primary theory of CBT is that changing maladaptive thought can lead to changes in affect and behavior

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Interactions with the police/ CPS

Interactions with the police/ CPS

- According to a 2006 survey conducted by the Autism Society of America
  - 35% of individuals with autism had been the victim of a crime
  - 23% have had interactions with first responders due to wandering or eloping

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Obstacles with CPS Investigations

- Roughly 30% of autistic children are non-verbal
- Many children have sensory issues
- Autistic children may not appear to have an emotional bond with their parents
- Autistic children are likely to respond with what they think you want to hear, as opposed to the truth
- Autistic children may have injuries from self-induced aggression or the need for restraint, not abuse
- 1,000 others!!

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Safeguards for legal/ CPS involvement

- Have records available of all of your child's medical information.
- Have your child's doctor and/ or therapists write a letter detailing problematic behaviors (CRITICAL FOR SELF-INJURIOUS BEHAVIORS!! that may mimic abuse)
- Keep copies of your child's school records, IEP, or therapy sessions on hand. Never leave home without documentation of your child's disability or needs on your person.
  - Yes, I know, easier said than done!

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Safeguards for legal/ CPS involvement

- People tend to fear most what they don't understand
  - Consider having a play date or block party with neighbors and their children
  - It may not go well, but at least others can see what you go through day to day
- If your child is mainstreamed in school consider having one of your child's therapists discuss their disability with the class
  - Bullying is a HUGE issue, and it may be very hard to prevent

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Take Me Home

- Free software program developed by the Pensacola, FL PD, and available to all police departments
- Families contact the police department and submit a recent digital photo, description of height, weight and other demographic information as well as emergency contact information.
- Information can be accessed on site by an officer to aid in the safe return of individuals to their families.

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Take Me Home (cont.)

- Conversely if someone goes missing, the information about them can be disseminated (like an "augmented Amber Alert")
- Voluntary and confidential
- For more information or to receive a free copy of the program, contact the Autism Society
  - www.autism-society.org

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Resources for dealing with Law Enforcement

- http://support.autism-society.org/site/DocServer/Law_Enforcement_and_Other_First_Responders.pdf?docID=10941
  - How to explain autism to authorities
- http://www.autism-society.org/living-with-autism/how-we-can-help/safe-and-sound/take-me-home.html
  - More info on the Take Me Home program
- http://webinars.autismnow.org/2012/may/29/lib/playback.html
  - A webinar on the Autism Society's Safe and Sound Program

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Resources for dealing with Law Enforcement

- http://www.awaare.org/faq.htm
  - A joint effort of several national leading autism organizations to help prevent elopement in children with autism
- http://www.achildismissing.org/about.asp?id=2
  - Another program available nationwide to help locate missing children

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Resources for dealing with Law Enforcement

- Children's Law Center 859-431-3313
- Department of Education 502-564-4970
- Kentucky Protection and Advocacy 800-372-2988

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Other Books on Autism That You May Find Helpful

- Chez, Michael, ***Autism and its Medical Management: A Guide for Parents and Professionals***, Jessica Kingsley Publishers, Apr 15, 2008.
- O'Brien Marion Ph.D. and Julie Daggett Ph.D., ***Beyond the Autism Diagnosis***, Paul H. Brookes Publishing Co, Baltimore MD, 2006.
- Rosenblatt, Alan I. and Paul S. Carbone, ***Autism Spectrum Disorders: What Every Parent Needs to Know***, American Academy of Pediatrics, Chicago, IL, 2012.

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Helpful Books on Pediatric Psychopharmacology

- Daniel F. Connor, and Bruce M. Meltzer, *Pediatric Psychopharmacology: Fast Facts,* W.W. Norton & Company, 2006
- Molly McVoy M.D., and Robert L. Findling M.D. M.B.A. *Clinical Manual of Child and Adolescent Psychopharmacology, Second Edition*, American Psychiatric Publishing, Inc, 2012

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