Pervasive Developmental Disorders: 201

Jennifer McWilliams, MD
Child & Youth Psychiatric Consult Project of Iowa
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Agenda

• Last month: The basics
• This month: Updates in treatments and what’s in store with DSM-V(?)
Treatment Options

• Behavioral and Educational Interventions
• Pharmacological Interventions
• Complimentary and Alternative Interventions
Behavioral and Educational

• Targets the core sx of PDD
• Difficult to study in RCT
• General consensus on services:
  – Begin as early as possible
  – Have a high staff:student ratio
  – Be a minimum of 25hrs/wk
  – Be 12mos/yr
  – Be individualized
Intensive Behavioral Interventions

• Applied Behavioral Analysis (ABA)
  – Based on learning theory
  – Reinforce desired behaviors and extinguish undesirable behaviors
  – Break skills down to simplest elements and promote generalization
  – Data collection is ongoing so that interventions can be adjusted based on patient’s response to therapy
Structured Teaching

- Treatment & Education of Autistic & related Communication-handicapped CHildren (TEACCH)
  - Highly structured and predictable classroom environment
  - Uses visual learning to support natural strengths
Developmental and Relationship Models

• Floortime
  – Focuses on teaching developmental and relationship skills that were not learned at expected age
  – Play sessions used as forum to develop skills
  – Integrates therapy for speech, motor, and cognitive skills
Intervention for Specific Behaviors

• Behavioral therapy can be used to target specific areas, including
  – Self-injurious behavior
  – Communication skills
  – Social skills
  – ADLs
Communication Interventions

• Total communication approach
  – Promote verbal and non-verbal communication, including augmentative communication strategies

• Augmentative communication strategies
  – Picture Exchange Communication System (PECS)
  – Technology, technology, technology, technology…
Social Skills

• Joint Attention
  – Teach kids to recognize, respond to, and initiate non-verbal social communication

• Modeling
  – Encourage kids to imitate behaviors demonstrated by therapist
Social Skills (cont)

• Peer Training
  – Support kids in interactions with kids without PDD

• Story-based interventions
  – Discuss narratives with socially expected behaviors as framework for discussion of real life situation
Sensory Integration

• Inconsistent results in studies, so controversial
• Maybe a component of comprehensive treatment plans
Pharmacological

• Meds don’t treat PDD, only improve functioning by reducing impairing sx
• Should always be used an *adjunct* to behavioral and educational therapies
• FDA-approved
  – Risperidone
  – Aripiprazole
  – *Everything else is off-label*…
Target Symptoms

- Hyperactivity, impulsivity, inattention
- Aggression, SIB
- Repetitive behaviors, mental rigidity
- Anxiety, depression
- Sleep
ADHD-like Symptoms

• Stimulants
  – Response rate is lower than in kids w/o PDD (~50% vs ~75-80%)
  – May require higher doses
  – Side effects may be more frequent

• Alpha-2 Agonists
  – Few studies
  – Comparable to stimulants?
  – Generally well-tolerated
ADHD-like Sx (cont)

- Other meds
  - Atomoxetine – few trials, smaller effect size than seen on kids w/o PDD
  - Risperidone – few trials, can be helpful for aggression as well, metabolic side effects
Aggression, SIB

• Risperidone, Aripiprazole
  – FDA-approved
  – Start low, go slow
  – Monitor metabolic side effects closely

• Other atypicals
  – Few, if any studies
  – Olanzapine – small studies show improvement and significant wt gain
Aggression, SIB (cont)

• Other meds
  – SSRIs – few studies, can be helpful if anxiety is underlying issue
  – Alpha-2 agonists – few studies, can be helpful if impulsivity is underlying issue
  – Mood stabilizers – very little data
Repetitive Behavior, Mental Rigidity

• SSRIs
  – Based on effectiveness with OCD
  – Limited studies in PDD
  – May be activating at “normal” doses

• Other meds
  – Risperidone, clomipramine – limited studies
Anxiety, Depression

- SSRIs
  - Limited studies, but based on use in kids w/o PDD
  - Again, start low, go slow
Sleep

• Melatonin
  – Few studies, seems effective for short-term use (months)
  – Effective when given 30 min before bedtime
• Clonidine
  – Any studies?? But well-known
• Trazodone?
• Optimize what the kid is already on!
CAM

• Few trials, if any, with any definitive outcomes
• Many families don’t volunteer that they are using these interventions (if you don’t ask, they don’t tell…)
• Generally categorized as biological vs non-biological
Biologically-based CAM

- Omega-3s – few studies, no conclusive evidence of benefit for PDD sx, does have cardiovascular benefits, SE: GI distress
- Secretin – Several studies show no benefit, not recommended
- Gluten-free/Casein-free – variable study results, may have short-term benefits for a small sub-population, difficult to adhere to
Biologically-based CAM (cont)

• Oxytocin – improves social functioning? Few, small trials only, too early to tell
• D-cycloserine – studies in prairie voles and social functioning, too early to tell
• Cognitive enhancers – limited data, but anecdotally…
Biologically-based CAM (cont)

• B6-Magnesium – Little data supporting efficacy, can be toxic in overdose
• Probiotics – No studies showing benefit, no studies showing harm
• IVIG – Not recommended
• Chelation – Not recommended
• Hyperbaric O2 – Not recommended
Non-biologically-based CAM

- Music therapy – limited research
- Horseback riding – limited research
- Auditory integration training – limited research
- Facilitated communication – not recommended
Autism Spectrum Disorder

- Must meet criteria A, B, C, and D:

  - A. Persistent deficits in social communication and social interaction across contexts, not accounted for by general developmental delays, and manifest by all 3 of the following:
    - 1. Deficits in social-emotional reciprocity; ranging from abnormal social approach and failure of normal back and forth conversation through reduced sharing of interests, emotions, and affect and response to total lack of initiation of social interaction,
    - 2. Deficits in nonverbal communicative behaviors used for social interaction; ranging from poorly integrated verbal and nonverbal communication, through abnormalities in eye contact and body-language, or deficits in understanding and use of nonverbal communication, to total lack of facial expression or gestures.
    - 3. Deficits in developing and maintaining relationships, appropriate to developmental level (beyond those with caregivers); ranging from difficulties adjusting behavior to suit different social contexts through difficulties in sharing imaginative play and in making friends to an apparent absence of interest in people
  
  - B. Restricted, repetitive patterns of behavior, interests, or activities as manifested by at least two of the following:
    - 1. Stereotyped or repetitive speech, motor movements, or use of objects; (such as simple motor stereotypies, echolalia, repetitive use of objects, or idiosyncratic phrases).
    - 2. Excessive adherence to routines, ritualized patterns of verbal or nonverbal behavior, or excessive resistance to change; (such as motoric rituals, insistence on same route or food, repetitive questioning or extreme distress at small changes).
    - 3. Highly restricted, fixated interests that are abnormal in intensity or focus; (such as strong attachment to or preoccupation with unusual objects, excessively circumscribed or perseverative interests).
    - 4. Hyper-or hypo-reactivity to sensory input or unusual interest in sensory aspects of environment; (such as apparent indifference to pain/heat/cold, adverse response to specific sounds or textures, excessive smelling or touching of objects, fascination with lights or spinning objects).
  
  - C. Symptoms must be present in early childhood (but may not become fully manifest until social demands exceed limited capacities)
  
  - D. Symptoms together limit and impair everyday functioning.
DSM-V - Rationale

New name for category, autism spectrum disorder, which includes autistic disorder, Asperger’s disorder, childhood disintegrative disorder and PDD NOS

• Differentiation of autism spectrum disorder from typical development and other "nonspectrum" disorders is done reliably and with validity; while distinctions among disorders have been found to be inconsistent over time, variable across sites and often associated with severity, language level or intelligence rather than features of the disorder.

• Because autism is defined by a common set of behaviors, it is best represented as a single diagnostic category that is adapted to the individual’s clinical presentation by inclusion of clinical specifiers (e.g., severity, verbal abilities and others) and associated features (e.g., known genetic disorders, epilepsy, intellectual disability and others.) A single spectrum disorder is a better reflection of the state of knowledge about pathology and clinical presentation; previously, the criteria were equivalent to trying to “cleave meatloaf at the joints”.

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DSM-V – Severity

Level 3 -- ‘Requiring very substantial support’
- **Social Communication:** Severe deficits in verbal and nonverbal social communication skills cause severe impairments in functioning; very limited initiation of social interactions and minimal response to social overtures from others.
- **Restricted interests & repetitive behaviors:** Preoccupations, fixated rituals and/or repetitive behaviors markedly interfere with functioning in all spheres. Marked distress when rituals or routines are interrupted; very difficult to redirect from fixedated interest or returns to it quickly.

Level 2 -- ‘Requiring substantial support’
- **Social Communication:** Marked deficits in verbal and nonverbal social communication skills; social impairments apparent even with supports in place; limited initiation of social interactions and reduced or abnormal response to social overtures from others.
- **Restricted interests & repetitive behaviors:** RRBs and/or preoccupations or fixed interests appear frequently enough to be obvious to the casual observer and interfere with functioning in a variety of contexts. Distress or frustration is apparent when RRB’s are interrupted; difficult to redirect from fixedated interest.

Level 1 -- ‘Requiring support’
- **Social Communication:** Without supports in place, deficits in social communication cause noticeable impairments. Has difficulty initiating social interactions and demonstrates clear examples of atypical or unsuccessful responses to social overtures of others. May appear to have decreased interest in social interactions.
- **Restricted interests & repetitive behaviors:** Rituals and repetitive behaviors (RRB’s) cause significant interference with functioning in one or more contexts. Resists attempts by others to interrupt RRB’s or to be redirected from fixedated interest.
What will this mean?

• Not sure…
When?

• May 2013...
Questions?

CYC-I Phone Number: 855-275-4444