Training Module

Autism Spectrum Disorders

Presented by

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Pervasive Developmental Disorders

The Autism Umbrella

Recognized by the DSM IV - TR

- Autism
- Asperger's
- PDD-NOS
- Rett's
- CDD

PDD

- They are grouped together because of the similarities between them.
- The three most common shared problems involve:
  - communication skills
  - motor skills
  - social skills

History of PDD

- The term autism, meaning "living in self" was coined by Swiss Psychiatrist Eugene Bleuler in 1911 to describe self-absorption due to poor social relatedness in schizophrenia.
- Leo Kanner, a Baltimore psychiatrist, borrowed this term to describe eleven children who "were oblivious to other people, did not talk or who parroted speech, used idiosyncratic phrases, who lined up toys in long rows and who remembered meaningless facts."
- In 1944 Hans Asperger, a Viennese pediatrician, independently described a condition similar to that described by Kanner. Like Kanner, he noted peculiarities of the content and delivery of speech.

Definition & Causes

- PDDs are manifested *by* pathology in *all* areas of mental function: behavior, cognition, and emotion.
- The underlying causes of PDD are under investigation, but PDDs can be caused by a number of different insults to the brain. These causes may be as diverse as viral infections, genetic abnormalities or other traumatic brain injuries,
- There is also current controversy over the use of certain immunizations in genetically susceptible individuals.

Autism

- Autistic disorder is frequently evident within the first year of life and must be diagnosed before age three.
- It is associated with moderate mental retardation in three out of four cases.
- These children do not want to be held, rocked, cuddled or played with. They are unresponsive to affection, show no interest in peers or adults and have few interests.
- Other traits include avoidance of eye contact, an expressionless face and the use of gestures to express needs.
- Their actions are repetitive routine and restricted, rocking, hand and arm flapping, unusual hand and finger movements, and attachment to objects rather than pets and people are common.
- Speech, play and other behaviors are repetitive and without imagination. They tend to be overactive, aggressive, and self-injurious.
- They are often highly sensitive to touch, noise, and smells and do not like changes m routine.

Autistic Disorder

DSM Criteria

At least two of these:

- Marked difficulty with non-verbals (eye contact, facial expression, body language, etc.)
- Failure to develop developmentally appropriate peer relationships
- A lack of spontaneous seeking to share with others (enjoyments, interests, achievements)
- No social or emotional reciprocity

At least one of these:

- Delay in or lack of development of language (spoken, gestures, etc.)
- The child has adequate speech, but has marked difficulty with initiating or sustaining conversations
- Stereotyped and repetitive use of language or idiosyncratic language
- Lack of developmentally appropriate varied, spontaneous, make-believe or imitative play

At least one of these:

- Abnormally preoccupied with one or more stereotyped and restricted patterns of interest (e.g. stacking things, rolling a toy car back and fo1th forever)
- Rigid adherence to non-functional routines or rituals
- Stereotyped and repetitive movement (e.g. hand flapping, rocking, spinning, etc.)
- Persistent preoccupation with parts of objects (e.g. the wheel of a toy truck)
- At least some of the problems evident before age 3
- It is not better explained by a diagnosis of Rett's or CDD

Asperger's Disorder

- Children afflicted with Asperger's syndrome exhibit difficulties in social relationships and communication.
- They are reluctant to make eye contact, do not respond to social or emotional contacts, do not initiate play activities with peers, and do not give or receive attention or affection.
- To receive this diagnosis the individual must demonstrate normal development of language, thinking and coping skills.
- Due to an impaired coordination of muscle movements, they appear to be clumsy. They usually become deeply involved in a very few interests which tend to occupy most of their time and attention.

DSM Criteria

Impairment in social interaction evidenced by at least two of the following:

- Non-verbal behaviors: eye to eye contact, facial expressions, and body gestures
- Failure to develop peer relationships
- Lack of sharing enjoyment with other people
- Lack of social or emotional reciprocity
- Restricted, repetitive and stereotyped patterns of behavior, interests or activities evidenced by at least one of the following:
    - Preoccupation with one or more patterns that are abnormal either in intensity or focus
    - Inflexible adherence to routines or rituals
    - Repetitive motor mannerisms - hand or finger flapping, or whole-body movement
    - Persistent pre-occupation with parts of objects
- Causes clinically significant impairment in social, occupational, or other areas of functioning.
- There is no significant delay in language.
- There is no delay in cognitive development or in the development of age appropriate self- help skills.
- Criteria are not met for another specific PDD or Schizophrenia.

PDD-NOS

- The term pervasive developmental disorder not otherwise specified (PDDNOS) is also referred to as atypical personality development, atypical PDD, or atypical autism.
- Individuals with this disorder share some of the same signs and symptoms of Autism or other conditions under the category of pervasive developmental disorders, but do not meet all of the criteria for diagnosis for any of the four syndromes included in this group of diseases.
- Because the children diagnosed with PDDNOS do not all exhibit the same combination of characteristics, it is difficult to do research on this disorder, but the limited evidence available suggests that patients are seen by medical professionals later in life than is the case for autistic children, and they are less likely to have intellectual deficits.

Rett's Disorder

- Rett's syndrome was first described in 1966 and is found almost exclusively in girls.
    - It is a disease in which cells in the brain experience difficulty in communicating with each other.
    - At the same time the growth of the head falls behind the growth of the body so that these children are usually mentally retarded.
    - These conditions are accompanied by deficits in movement (motor) skills and a loss of interest in social activities.
- The course of the illness has been divided into four stages.
    - Stage One - the child develops normally for six to 18 months.
    - Stage Two - development slows clown and stops.
    - Stage Three - is characterized by a loss of the speech and motor skills already acquired. Typically this happens between nine months and three years of age.
    - Stage Four - begins with a return to learning which will continue across the lifespan, but at a very slow rate. Problems with coordination and walking are likely to continue and even worsen.
    - Other conditions that can occur with Rett's syndrome are convulsions,

constipation, breathing problems, impaired circulation in the feet and legs, and difficulty chewing or swallowing.

DSM Criteria

All of the following:

- Normal pre-natal development
- Normal psycho-motor development for the first five months
- Normal head-circumference at birth

On-set of all of the following after the period of normal development:

- Deceleration of head growth between ages of *5* months to 48 months
- Loss of previously acquired purposeful hand skills *5* months and 30 months with the development of stereotyped hand movements including hand-wringing or hand-washing
- Loss of social engagement early in the course
- Poorly coordinated gait or trunk movement
- Severe impairment of receptive & expressive language development with severe psycho motor retardation

Childhood Disintegrative Disorder

- Childhood disintegrative disorder is also called Heller's disease and most often develops between two and ten years of age.
- Children with CDD develop normally until two to three years of age and then begin to disintegrate rapidly.
- Signs and symptoms include deterioration of the ability to use and understand language to the point where they are unable to carry on a conversation.
- This is accompanied by the loss of control of the bladder and bowels.
- Any interest or ability to play and engage in social activities is lost.
- The behaviors are nearly identical with those that are characteristic of autistic disorder.
- However, childhood disintegrative disorder becomes evident later in life and results in developmental regression, or loss of previously attained skills, whereas autistic disorder can be detected as early as the first month of life and results in a failure to progress.
- Seems normal for at least the first 2 years.
- Similar to Autistic Disorder, but the onset is more sudden/rapid and severe
- May include a loss of bladder or bowel control.

Causes

No definitive answer; Theories include:

- Vaccines
- Genetics - no specific marker identified, but family studies note a higher prevalence of PDD in families.
- Atypical brain development- some evidence
- Immune deficiency - some evidence
- Food allergies - some evidence
- Bad parenting-theory disproven/abandoned
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Prevalence of PDDs

- CDC reports “as many as 1 in 166," or 2-7 cases per 1,000 children
- 3x more likely to affect males

Challenging the Myths

- Caused by bad parenting
- All are highly intelligent
- All develop normally then regress
- All have sensory issues All have food allergies,
- All have vitamin deficiencies
- All have extraordinary memories
- All avoid eye contact entirely
- All are echolalic, mute, or speak in their own language
- All are anxious, easily agitated or explosive

Target Areas of Intervention

- Social/Communication
- Attachment to patterns
- Perfectionism/Rigidity
- Coping with and expressing emotions appropriately
- Compliance
- Body movements

Working with Social/Communication Difficulties

- Be aware of child's interests and sensory concerns.
- Be prepared to explain the most minute details ofsocial "rules" (clearly explain how it affects him)
- Social stories, scripting, and other narratives forteaching needed skills
- Help to understand social cues, non-verbals, andpara-verbals
- Supplement with visuals (esp. in the classroom)
- Peer Modeling/Buddy systems
- Beware of overindulgent parents/teachers/peers
- May need help with "playing fair"
- Token economy or incentive

Inappropriate or Excessive Emotional Expression

- Screaming/yelling, verbal and/or physical aggression
- Beware of attention-seeking/reaction-seeking
- Peer or sibling modeling may be helpfol (if child has any interest in being like

others)
- Social stories, etc. to help teach coping strategies
- Draw child's attention to the "scene" he/she is causing (when appropriate)
- Praise/Reward progress

Body Movements

- Often self-soothing
- Is it interfering with anything or otherwise causing harm? If not, leave it alone.
- If interfering - replace with a more appropriate behavior that serves the saine function

Using Reinforcements

- Positive vs. Negative vs. Punishment
- Reinforcing = highly desirable
- Whenever possible, offer choice
- Greater immediacy = Greater benefits
- Contingent delivery
- Continuous vs. Intermittent
- Praise generously

Social Skills Training

- Social skills training utilizes a primarily cognitive-behavioral approach to teach social skills who have social-communication difficulties.
- Three principal goals guide our services:
    - To provide relevant social skill instruction that will generalize into daily routines.
    - To make socializing fun so that students want to socialize.
    - To help "typical" peers and professionals become more understanding, accepting, and engaging of those with social difficulties.
    - Group Activity - Paper Bag Puppet

Formal Models For Intervention

Floor Time
Incidental Teaching
ABA/Verbal Behavior

- Specific training - certification

Floor Time / The Greenspan Model

- Basic premise - social connection required to be able to learn from others and become functioning members of society
- Statis where the child is as a means of connecting (i.e. Joining in with child's activity, imitating sounds or speech) and expands from there
- Therapist speaks and acts like a children's TV show character (exaggerated speaking, sound effects, singing, etc.)
- Always focused on getting and keeping child engaged

Incidental Teaching

- Looks for teaching opportunities that arise naturally
- Child directed with therapist providing feedback within the context of the natural environment
- Helps with issues of spontaneity and generalization

ABA/Verbal Behavior

Highly structured and systematic
Intensive
Uses prompts and reinforcements to model behavior
Discrete trial training