Developmental Disabilities: Diagnosis and Treatment

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Developmental Disability

“A severe and chronic disability that is attributable to a mental or physical impairment that begins before an individual reaches adulthood.”

- Originates before age 18
- Expected to continue indefinitely
- Results in a substantial impairment in 3 or more major activities of life

DDS: [www.dds.ca.gov/generalinfo_about_dd.cfm](http://www.dds.ca.gov/generalinfo_about_dd.cfm)
Forms of Developmental Disabilities

- Cerebral Palsy
- Epilepsy
- Autistic Disorder
- Intellectual Disabilities

- Conditions closely related to intellectual disability or requiring similar treatment
Cerebral Palsy

- Two types of motor dysfunction
  - Nonprogressive lesion or disorder in the brain occurring during intrauterine life or the perinatal period and characterized by paralysis, spasticity, or abnormal control of movement or posture, which is manifested prior to two or three years of age
  - Other significant motor dysfunction appearing prior to age 18

- Prevalence: about 2.4 out of 1000 children

- Affects about 16% of RC population
Epilepsy

- A chronic condition that briefly interrupts the normal electrical activity of the brain that causes unpredictable and recurrent seizures which alter a person’s consciousness, movement, or actions for a short time

- Prevalence: about 1 out of 118 people (about 0.85% of population)

- Affects 17% of RC population
Autistic Disorder

- Neurodevelopmental disorder
- A syndrome causing gross and sustained impairment in social interaction and communication with restricted and stereotyped patterns of behavior, interests, and activities that appear prior to the age of three
- Prevalence: about 1 out of 68 children in US (CDC, 11/2014)
- Affects about 30% of RC population
Autism Spectrum Disorder

- Most cases have no known causes
- Genetics plays a role but factors involved are unknown
- Affects 5:1 male to female (1 in 42 boys, 1 in 189 girls) (CDC, 11/2014)
- Early identification and intervention is key
Autism Spectrum Disorder

- Autism is a spectrum disorder
- In most cases autism is a lifelong condition
- Common symptoms
  - Social skill deficits
  - Communication skill deficits
  - Stereotyped and repetitive patterns of behavior
Autism: Social Skill Deficits

- **Lack of Reciprocal Interaction**
  - Lack of desire to please others
  - Low response to social reinforcers

- **Lack of Awareness of Others**
  - Lacks concerns regarding others’ effects
  - Motive to please self is foremost
  - Theory of mind

- **Lack of Social Imitation**
  - No drive to follow group norms
  - Impaired non-verbal social interactions
Autism: Communication Skill Deficits

- Low Response to Facial Cues
  - Lacks understanding of facial expressions to communicate meaning

- Lack of Understanding of Non-verbal Signals
  - Ignores hand signals and head shakes to modify behavior

- Deficits in Expressive Language
  - Mute, nonverbal, and/or echolalia
  - Restricted use of language
Autism: Stereotyped Behaviors

- Stereotyped and Restrictive Interests
  - Averse to novelty and low curiosity
  - Limited learning through exploration

- Repetitive Behavior
  - Repetition of vocalization, motions, behaviors, etc.

- Unconventional Preoccupations
  - Strict adherence to routines or rituals
  - Obsession with pants or unusual play

- Abnormal Sensory Responses
  - High or low sensitivity to sound, touch, smells, taste, motion, etc.
Intellectual Disabilities

- Previously called Mental Retardation
- Significant limitations in both intellectual functioning (IQ of 70 or below) and in adaptive functioning as expressed in conceptual, social and practical adaptive skills.
- Onset before age 18
- Prevalence: 1%-3% of population
- 1/3 of cases are of unknown etiology
- 1.5:1 male to female ratio
- Affects about 66% of RC population

Dec 2014 CDER Report
Severity of Intellectual Disability

- **Mild** - IQ of 50-55 to 70 (85% of ID population)
  - “Educable” - can learn between 3rd and 6th grade level
  - Mental age 8-12
  - Social and vocational skills with minimum self support and some supervision

- **Moderate** - IQ of 35-40 to 50-55 (10% of ID population)
  - “Trainable” - difficult to learn academic subjects (less than 2nd grade level)
  - Mental age 5-8
  - Unskilled or semiskilled work under supervision in workshop

- **Severe** - IQ of 20-25 to 35-40 (3%-4% of ID population)
  - Little to no speech
  - Pre-academic skills and supervision for self care

- **Profound** - IQ below 20-25 (1%-2% of ID population)
  - No language skills (most likely)
  - Constant care and supervision
Other Developmental Disabilities

- Handicapping conditions similar to intellectual disability that require treatment similar to that required by individuals with ID

- Does not include conditions that are solely psychiatric or physical in nature

- Results in substantial handicap, likely to continue indefinitely and involves brain damage or dysfunction

- Affects roughly 15% of RC population
Treatment

- Autism Specific Treatment- mostly for children and to teach functional skills for future
  - Discrete Trial Training (DTT)
  - Natural Learning Paradigms (NLP)
  - Picture Exchange Communication System (PECS)
  - Treatment and Education of Autistic and Communication Handicapped Children (TEACCH)
Assessment of Problematic Behavior

- Communication
- Self-Stimulatory Behavior
- Need for Structure or Routine
- Learned Behavior
Communication

- Verbal or non-verbal
- Behavior is way to communicate
- Assess what they are trying to communicate

**Intervention:**

- PECS/ASL
- Provide them with words
- Help to solve problem
- Rule out medical causes
Self-Stimulatory Behavior

- Sensory Integration Deficits- One feels physically uncomfortable because various sensory systems are needing input and/or are needing protection from input.
  - Under-stimulated (hyposensitivity)
  - Over-stimulated (hypersensitivity)

- Intervention:
  - Create sensory diet
  - Offer sensory integration
Exhibition of Under-Stimulation (Hyposensitivity)

- Visual: Staring at lights; repetitive blinking; moving fingers in front of eyes; hand-flapping
- Auditory: Tapping ears; snapping fingers; making vocal sounds
- Tactile: Rubbing the skin with one’s hands or with another object; scratching
- Taste: Placing body parts or objects in one’s mouth; licking objects
- Smell: Smelling objects; sniffing people
- Vestibular: Spinning for hours; likes sudden bumps in road
- Proprioceptive: Jumping on trampoline for hours; falling on the floor intentionally

Keliher, (2009)
Exhibition of Over-Stimulation (Hypersensitivity)

- **Visual:** Covers eyes (could also be anxiety or physical pain); easily distracted away from tasks; avoids eye contact; bright or dim room is difficult

- **Auditory:** Runs away after unexpected sound; refuses to go to a public event

- **Tactile:** Does not like water on face; non-cooperative while getting fingernails cut; disrobes

- **Taste:** Prefers bland foods; likes only a few foods; has to have a sauce on all foods

- **Smell:** Refuses food because of smell; household smells or hygiene smells cause irritation

- **Vestibular:** Physically clings to another person; afraid to step off curb

- **Proprioceptive:** Breaks toys; plays with animals roughly
Video

- www.wimp.com/autisticgirl/
- Watch for clues regarding: intelligence, sensory integration, and emotional regulation
Need for Structure or Routine

- Often seek out structure or routine
- Behaviors arise during times of boredom or changes, especially if unexpected

Intervention:
- Create schedules
- Inform person of changes before they occur
Learned Behaviors

- Habits people have learned to get their needs met, either positive or negative

- Intervention:
  - Functional analysis of behavior
Functional Analysis of Behavior

- Operational definition
- Baseline data and goal
- Antecedents
- Precursors
- Consequences maintaining behavior
- Functional analysis
- Replacement behaviors
- Preventative strategies
- Response strategies
General Preventative Interventions

- One-to-one time with staff
- Daily schedules
- Timers for transitions
- Relaxation techniques
- Feelings chart
- Creating “If....then...” situations
- Creating social stories
- Using short and concrete instructions/ questions
- Praise often
General Response Interventions

- Remove from the area
- Decrease stimulation and/or demands and slowly reintroduce
- If safe, ignore behavior
- Teach correct behavior and what a person could have done differently
- Acknowledge persons feeling while correcting behavior
- Give words to what a person is going through
- Model appropriate behavior