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# ASD Intervention: A Developmental and Relationship-Based Approach

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## Disclosures

- ▶ I have no relevant financial relationship with the products or services described, reviewed, evaluated or compared in this presentation.
- ▶ I have a professional relationship with one of the organizations discussed in this presentation. I have completed training from Profectum Academy and earned the Profectum/DIR Professional Certificate.

## Goals of the Course

- ▶ To provide an introduction to the Developmental, Relationship-Based Intervention model
- ▶ To describe the Functional Emotional Developmental Levels and related Speech-Language-Communication Milestones
- ▶ To provide examples for use of the model with individuals with ASD in speech-language intervention
- ▶ To review evidence on outcomes of the model with individuals with ASD

## Relevancy of the Model for SLP

- ▶ SLPs are the communication experts
- ▶ Communication.....
  - ▶ Purpose - to share ideas and thoughts with other people
  - ▶ Makes us distinctly human
  - ▶ "If all my possessions were taken from me with one exception, I would choose to keep the power of communication, for by it I would soon regain all the rest"
    - ▶ Daniel Webster
- ▶ Communication is based on engagement between two or more people
- ▶ The RELATIONSHIP is key

## Why is the model applicable in work with ASD?

### ► Autism - Diagnostic Criteria, DSM 5

- Persistent deficits in **social communication** and social interaction across multiple contexts, either currently or by history
- Restricted, repetitive patterns of **behavior**, interests, or activities, either currently or by history
- Symptoms must be present in the early developmental period
- Symptoms cause *clinically significant impairment* in social, occupational, or other important areas of functioning

► (American Psychiatric Association, 2013)

## Consider the Social Communication Criteria (must show evidence of all three deficits)

Persistent deficits in social communication and social interaction across multiple contexts, as manifested by the following, currently or by history:

- 1) Deficits in social-emotional reciprocity
  - Abnormal social approach
  - Failure of normal back-and-forth conversation
  - Reduced sharing of interests, emotion, affect
  - Failure to initiate or respond to social interaction
- 2) Deficits in nonverbal communicative behaviors used for social interaction
  - Poorly integrated verbal and nonverbal communication
  - Abnormalities in eye contact and body language
  - Deficits in understanding and use of gestures
  - Lack of facial expressions and nonverbal communication

## Social Communication (cont'd)

- ▶ 3) Deficits in developing, maintaining and understanding relationships
  - ▶ Difficulties adjusting behavior to suit various social contexts
  - ▶ Difficulties in sharing imaginative play or in making friends
  - ▶ Absence of interest in peers
- ▶ (American Psychiatric Association, 2013)

## Who can benefit?

- ▶ Useful for many populations
- ▶ Lots of interest for individuals with ASD
- ▶ Could benefit individuals with a range of social challenges
  - ▶ Down syndrome, language learning disorders, cognitive delays, Rett syndrome
- ▶ Infants through adolescents
- ▶ Key Factors:
  - ▶ The clinician - what developmental framework is used for intervention
  - ▶ The child's environment
  - ▶ The child's partners - WHO they will interact with

## DIR and Floor Time

- ▶ Developmental Individual-Difference Relationship-Based approach
  - ▶ Developed by Stanley Greenspan, M.D. & Serena Wieder, Ph.D.
  - ▶ Support development of relationship, affect, relatedness
  - ▶ Engagement
  - ▶ Focus on social-emotional development
  - ▶ Floortime is an intervention tool that is part of the approach
    - ▶ (Greenspan & Wieder, 1998)

## What does DIR mean??

- ▶ D - child's unique developmental profile
- ▶ I - child's individual differences
- ▶ R - how do the child's relationships support growth
- ▶ EACH ELEMENT IS CONSIDERED IN CONJUNCTION WITH THE OTHER

## Model - Nine Functional Emotional Developmental Levels (FEDLs)

- ▶ 1. Regulation and interest in the world
- ▶ 2. Attachment
- ▶ 3. Intentional communication
- ▶ 4. Behavioral organization (complex sense of self)
- ▶ 5. Representational elaboration
- ▶ 6. Representational differentiation
- ▶ 7. Multi-causal and triangular thinking
- ▶ 8. Comparative and gray area thinking
- ▶ 9. Reflective thinking/growing sense of self

Greenspan (2004); Greenspan & Wieder (1998)

### Level 1: Regulation & Shared Attention 0-3 months

- ▶ Child is calm and alert
- ▶ Attentive to information
- ▶ Receptive to social partner and learning environment
- ▶ Available for interaction

## Level 2: Mutual Engagement and Relationship Formation 2-5 months

- ▶ Child is able to engage in mutually enjoyable interactions with another person
- ▶ Has a capacity to form relationships with caretakers

## Level 3: Intentional Two-Way Purposeful Communication 4-10 months

- ▶ Child communicates interactively
- ▶ Engaged in back and forth exchanges
- ▶ Initiates interactions with intentions
- ▶ Has ideas he/she wants to express
- ▶ Term “circles of communication” frequently used at this level



#### Level 4: Complex Problem Solving 9-18 months

- ▶ Child engages in lengthy joint activities
- ▶ Continuous flow, more opening and closing of circles of communication
- ▶ Improved motor and visual-spatial capacities assist in planning and problem solving

#### Level 5: Symbolic Thinking/ Language/Emotions 18-30 months

- ▶ Child uses symbols to express and share ideas
- ▶ Pretend play emerges
- ▶ Original imaginary ideas and actions emerge

## Level 6: Building Bridges and Abstract Thinking 30-48 months

- ▶ Begins to express logical ideas
- ▶ Judgment is expressed
- ▶ Gives reasons behind ideas - answers "why" questions

## Levels 7, 8, 9: Middle - Late Childhood

- ▶ Level 7: Multi-causal comparative and triangular thinking - gives multiples reasons behind ideas; understands how one relationship impacts other relationships
- ▶ Level 8: Comparative and gray area thinking - understands degrees of emotions, ideas, etc. Makes comparisons between ideas and supports ideas in logical ways. Understands social hierarchies.
- ▶ Level 9: Reflective thinking/growing sense of self - as they approach puberty they become more reflective, consider more than one frame of reference and consider past, present, future

## Approach

- ▶ FEDLs used for assessment
  - ▶ Use the child's profile to determine where they are
    - ▶ Consider: language, motor, sensory, social, emotional, cognitive abilities
- ▶ The levels build upon each other
- ▶ Child can be "between" or go up and down the levels
- ▶ Performance can vary with different amounts of support
- ▶ Floortime is an intervention strategy
  - ▶ Includes:
    - ▶ Following the child's lead
    - ▶ Joining the child's world to utilize their natural interests
    - ▶ Identifying each child's individual processing differences
    - ▶ Identifying unique differences of clinicians/parents/teachers

## How is the model useful for Language Intervention.....

- ▶ Can align certain language and communication milestones with the levels
- ▶ Appreciation of the child's social and emotional development can inform language intervention and goals to target
- ▶ Can drive contexts and choices of intervention targets and settings
- ▶ Consideration of the RELATIONSHIP and what is occurring between communication partners can drive intervention
- ▶ E.g.,
  - ▶ How well can a child become engaged?
  - ▶ How well can they open and close circles of communication?
  - ▶ What is their level of comprehension?

## Developmental Language Levels

- ▶ 1. Self-regulation and interest in the world (birth-3 mos)
- ▶ 2. Forming relationships and affective vocal synchrony (2-7 mos)
- ▶ 3. Intentional two-way communication (8-12 mos)
- ▶ 4. First words: sharing meaning in gestures and words (12-18 mos)
- ▶ 5. Word combinations: sharing experiences symbolically (18-24 mos)
- ▶ 6. Early discourse: reciprocal symbolic interactions with others (24-36 mos)

▶ (ICDL-DMMC, 2005)

## Intervention Activities

- ▶ Floortime sessions
  - ▶ Adult or peer interacts with the child
  - ▶ Spontaneous interactions
  - ▶ Follow the child's lead
  - ▶ Facilitate expansion of child's ideas and intentions
- ▶ Semi-structured problem-solving interactions
  - ▶ Address specific learning objectives
  - ▶ Use dynamic interactions
  - ▶ Engage the child to problem solve and think creatively
- ▶ Engage the child in motor, sensory, perceptual-motor and visual-spatial activities that challenge processing

▶ (Gerber, 2013)

## Clinical Cases - Fundamentals to consider....

- ▶ Demonstrate use of model in intervention
- ▶ Contrast to more "structured" work
- ▶ Use of high affect
- ▶ Lots of back and forth - continuous flow
- ▶ Establish engagements and regulation - the relationship is KEY
- ▶ Then introduce language targets

## Child One

- ▶ Language, sensory, cognitive, motor challenges
- ▶ FEDLs
  - ▶ 2 Engagement and relating
  - ▶ 3 Two-way intentional communication
- ▶ Developmental Language levels
  - ▶ 2 Forming relationships and affective vocal synchrony
  - ▶ 3 Intentional two-way communication
- ▶ Child is limited verbally
- ▶ Typically does not initiate
- ▶ Most adults have trouble engaging him in back and forth activities

## Child One - Video 1

## Child Two

- ▶ Diagnosed with ASD
  - ▶ Sensory processing, motor, language challenges
- ▶ FEDLs
  - ▶ 4 - Complex problem solving
  - ▶ 5- Creative representation and ideas
- ▶ Developmental language levels
  - ▶ 6 - Early discourse: reciprocal symbolic interactions
- ▶ Goals of language treatment:
  - ▶ Using language to describe events in the immediate past, planning for upcoming events, expanding range and complexity of play. Beginning to build complex play scenes with characters and express a variety of ideas in play.

## Child 2-Video 1

- ▶ Retelling of events in therapy
- ▶ Notice -
  - ▶ Lack of fluency
  - ▶ Hesitancy
  - ▶ Continual need for prompting

## Child 2-Video 2

- ▶ There is more rhythmic flow
- ▶ Back and forth
- ▶ Child has opportunity to express ideas
- ▶ Wider range of emotions expressed
- ▶ Problem solving occurs
- ▶ Language goals are met... and more naturally

## Child Three

- ▶ Language, cognitive, motor planning challenges
- ▶ FEDLs
  - ▶ 4 - Behavioral Organization/Problem Solving - with repetition, structure and support can engage in problem solving
  - ▶ 5 - Creates and Elaborates Symbols - islands of capacity here; - there's a lot of restriction; dependency on literal events; hard to become abstract
- ▶ Developmental language level
  - ▶ 6+ - Discourse - reciprocal symbolic interactions - expanding affective and emotional themes

## Child 3 -Video 1

- ▶ Goals of the session: providing reasons for actions, sharing complex and new ideas, asking for information to solve problems
- ▶ Context - child has prepared a list of questions about my recent trip
- ▶ Notice - she doesn't really attend to answers; it's not a true exchange of information and ideas; she really wants to just ask a list of questions



## Child 3-Video 2

- ▶ Language Intervention Strategy - participate in play scenarios; child chooses the topic, the characters, the events.
  - ▶ Treatment goal - to begin to assess and then advance her play and her social-emotional skills, and her complex thinking and ideas

## Evidence to Support the Value of the Model is Growing

- ▶ National Standards Project - identified DIR as an emerging treatment that has some evidence of effectiveness (NAC, 2009)
- ▶ DIR intervention has resulted in increased communication, social engagement and relating in children with ASD (Pajareya & Nopmaneejumruslers, 2011)
- ▶ Randomized control trial compared DIR intervention with community treatment
  - ▶ Found children in DIR group made significant gains in social interaction skills compared to those in community treatment group
  - ▶ Caregiver skills that were targeted by DIR intervention were significantly associated with changes in children's interaction skills (Casenhiser, Shanker & Stieben, 2013)

### ► The PLAY Project

- Parents trained in DIR/Floortime model
- 68 children participated
- Enrolled in 8-12 month program
- Parents encouraged to do 15 hrs per week of 1:1 interaction
- Results - 45.5% of children made good to very good functional progress
- Overall parent satisfaction rate was 90%
  - (Solomon, Necheles, Ferch & Bruckman, 2007)

## Resources

### ► Websites

- [ICDL](#) - Interdisciplinary Council on Development and Learning
- [Profectum](#) - Profectum Academy

### ► Books

- Greenspan, S. & Wieder, S. (2006). *Engaging autism: Using the Floortime approach to help children relate, communicate, and think*. Philadelphia, PA: Perseus.
- Robinson, R. G. (2011). *Autism solutions: How to create a healthy and meaningful life for your child*. Ontario, Canada: Harlequin.

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