

Intervention with Young Children with Autism: Supporting Families and Using Daily Routines to Facilitate Development

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Disclosure

We receive royalties from two books upon which this presentation is based.

Presentation Objectives

- ▶ Provide strategies for supporting parents from suspicions of ASD through accessing services
- ▶ Introduce the presenters' model of the core deficits of ASD
- ▶ Provide strategies to address these core deficits along with those across developmental domains by coaching parents using daily routines
- ▶ Provide ideas for monitoring progress in a variety of routines

Supporting Families from Suspicion to Diagnosis

- ▶ Starting the discussion
- ▶ DEC's "Family Practices"
- ▶ After the diagnosis
- ▶ Family stress
- ▶ Cultural considerations
- ▶ Hope and optimism

Starting the Discussion

- ▶ Ask if anyone has expressed concerns about behaviors, e.g. lack of flexibility or lack of eye contact
- ▶ Talk about some of the child's strengths
- ▶ Talk about the specific behaviors that are areas of concern
- ▶ Use materials (such as fact sheets) that talk about early behaviors associated with autism so the parents know you are basing the discussion on facts, not feelings.
- ▶ Make it a discussion, pause for person to think and respond
- ▶ Watch for person's reaction in voice and body language to decide how to proceed

Centers for Disease Control and Prevention. (n.d.). *Tips for talking with parents*. Retrieved from http://www.cdc.gov/ncbddd/actearly/pdf/parents_parents_parents_parents_parents.pdf

DEC's Family Practices

- ▶ Family-centered practices
- ▶ Family capacity-building practices
- ▶ Family and professional collaboration

Division for Early Childhood. (2014). DEC recommended practices in early intervention/early childhood special education 2014. Retrieved from <http://www.dec-speds.org/recommendedpractices>

Building Family Competence and Coaching

- ▶ Family-centered supports and services for infants/toddlers with special needs are both recommended and evidence-based practices in EI
- ▶ Strengthen child-caregiver relationship
- ▶ Build caregiver's confidence and competence to help the child learn in everyday routines
- ▶ Focus on things that are important to the family

Friedman, M., Woods, J., & Salisbury, C. (2012). Caregiver coaching strategies for early intervention providers: Moving toward operational definitions. *Infants & Young Children, 25*(1), 62-82

Making Decisions about Treatment Approaches

- ▶ Continuum from developmental strategies to behavioral intervention
- ▶ Treatment recommendations for infants and toddlers vary greatly
- ▶ Important to consider child's environment, family's skills, coaching to achieve 25 hours of active engagement

Whetherby, A.M., & Woods, J. (2006). Early social interaction project for children with autism spectrum disorders beginning in the second year of life: A preliminary study. *Topics in Early Childhood Special Education, 26*(2), 67-82.

Family Stress

- ▶ Getting the diagnosis
- ▶ Putting together services
- ▶ Learning the vocabulary
- ▶ Shift in parent roles
- ▶ Concerns re: time management, balancing work with child's needs
- ▶ Multiple children with needs
- ▶ Child's behaviors

Cultural Considerations

Culture may impact family's understanding of autism, perception of disability, expectations for the child and interactions with the child.

Griffin, P., Peters, M.L., & Smith, R.M. (2007). Abolition curriculum design. In M. Adams, L.A. Belle, & P. Griffin, (Eds.), *Teaching for diversity and social justice* (2nd ed. pp. 335-358). New York, NY: Taylor & Francis.

Hope and Optimism

Hope and optimism have been correlated with positive outcomes with children with ASD

- ▶ Address child's problems directly rather than avoid "triggers"
- ▶ Support family in routines that are challenging
- ▶ Problem solve solutions with the family

Bailey, K. (2008). Supporting families. In K. Charwarsha, A. Klin, & F.R. Volkmar (Eds.), *Autism Spectrum disorders in infants and toddlers: Diagnosis, assessment, and treatment* (pp. 300-326). New York, NY: Guilford Press.; Durand, V.M. (2011). *Optimistic parenting: Hope and help for our challenging child*. Baltimore, MD: Paul H. Brookes Publishing Co.

Embedding Principles of Behavior and Teaching Strategies Into Routines Based Intervention

- ▶ Motivation and Reinforcement
 - ▶ Task Analysis
 - ▶ Shaping and Prompting
 - ▶ Repetition
 - ▶ Generalization
- (Data Collection and Progress Monitoring)

Motivation and Reinforcement

- ▶ What is important to the family?
- ▶ What does the child like to do?
- ▶ What interactions evoke smiling and laughing?
- ▶ How can we become valued?
- ▶ Can we use the child's preferences and strengths to attain new skills?



Reinforcer Effectiveness

- ▶ Immediacy
- ▶ Contingency
- ▶ Magnitude
- ▶ Variability
- ▶ Deprivation

Gulick, R. F., & Kitchen, T. P. (2007). *Effective instruction for children with autism*. Erie, PA: The Gertrude A. Barber National Institute.

Video: Motivation and Reinforcement/ Directions Embedded into Bubbles

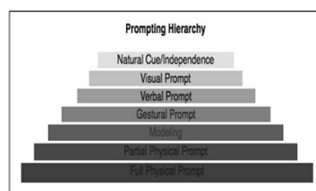
Task Analysis

- ▶ Helps determine steps needed to attain goal.
- ▶ Should be tailored to individual strengths and needs.
- ▶ Helps maintain consistency and predictability.

Shaping and Prompting

- ▶ Reinforcing successive approximations for each step of the task analysis moves child closer to the targeted skill.
- ▶ Prompt fading is essential for independent mastery of the skill
- ▶ Prompt dependency reflects teaching missteps.

Different Roads to Learning. <https://blog.difflearn.com/2013/10/31/tip-of-the-week-avoid-prompt-dependence-when-teaching-new-skills/>



Repetition

- ▶ How can we arrange the environment to get repetition?
- ▶ How can we get many repetitions in a short amount of time?

Generalization

- ▶ Essential for independent, functional use of the skill.
- ▶ Over-generalization: avoid and remedy through the use of varied examples and non-examples.

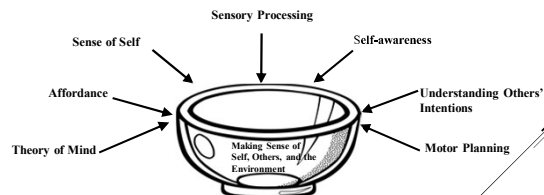
Video

ADDRESSING THE CORE DEFICITS OF AUTISM IN INFANTS AND TODDLERS



Crawford, M. J. & Weber, B. (2016). *Autism intervention every day! Embedding activities in daily routines for young children and their families*. Baltimore, MD: Paul H. Brookes Publishing Co.

Making Sense of Self, Others, and the Environment: What is It?



SENSORY CONTINUUM



Vision, Hearing, Taste, Touch, Smell, Proprioception—Deep pressure (receptors are in the tendons, muscles, and joints), Vestibular (receptors are in the inner ear)

Making Sense of Self, Others, and the Environment: Why is it Important?

Influences what we do to occupy ourselves and our interactions with objects and with others.

Building Skills to Support Making Sense of Self, Others, and the Environment:

- ▶ Attends to Sensory Stimuli
- ▶ Tolerates Sensory Stimuli
- ▶ Shifts Attention
- ▶ Imitates Actions
- ▶ Follows Directions

Attending to sensory stimuli, tolerating sensory stimuli, shifting attention → imitating actions, and following directions.

Example of Routine in which **Attends to Sensory Stimuli** Is Embedded

Bath Time

- ▶ Auditory: Talk about body parts being washed, the warm water, and the bath toys. Make up a song about washing. Make silly sounds as you dry off the child.
- ▶ Olfactory: Use a variety of scented bath products.
- ▶ Tactile/Proprioceptive: Vary the pressure when washing and drying. Provide a massage after bath.
- ▶ Visual: Provide a variety of colors containers to fill and dump. Try tablets to change the color of the water, bubble bath, or blow bubbles.

Example of Routine in which **Tolerates Sensory Stimuli** Is Embedded

Community Outings

- ▶ Auditory: Describe sounds the child will hear such as an approaching siren or train.
- ▶ Gustatory: Provide tastes of new foods when going out to eat as some children are more willing to try foods at a restaurant.
- ▶ Olfactory: If walking by something that has an unpleasant smell, playfully say "yuck, that stinks!"
- ▶ Proprioceptive: Help the child jump over cracks in the sidewalk.
- ▶ Vestibular: For children who don't like to swing, as a first step, put the child on your lap and sit on the swing without moving it.

Example of Routine in which **Shifts Attention** Is Embedded

Diapering and Dressing

- ▶ Show the child each item used in the diapering routine such as the diaper and the wipes and name them. If the child doesn't look at the item, move the item to the child's visual field and then to your mouth so the child looks at the item and then to you.
- ▶ When putting on the child's socks and shoes, hold out the article of clothing and wait for the child to extend each foot. If the child does not do so, tap on his or her foot.
- ▶ Help the child shift attention to your voice by being playful and building anticipation such as "I'm going to..... kiss your nose".

Video

Example of Routine in which **Imitates Actions** Is Embedded

Bedtime

- ▶ Blowing kisses
- ▶ Hugging stuffed animals
- ▶ Folding hands for prayers

Video

Example of Routine in which **Following Directions** Is Embedded

- Book Time
- ▶ "Get the bunny book."
 - ▶ "Turn the page."
 - ▶ "Touch the apple."
 - ▶ "Put the book away."

Video

Flexibility: What is It?



Flexibility: Why is it Important?

- ▶ Supports regulation
- ▶ Supports making predictions and acting upon the world
- ▶ Inflexibility can impact many routines
- ▶ DSM-5 "restrictive and repetitive patterns of behaviors"
"insistence on sameness" "inflexible adherence to routines"
"ritualized patterns of verbal or nonverbal behavior"

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Arlington, VA: American Psychiatric Publishing.

Building Skills to Support Flexibility

- ▶ Transitions
- ▶ Perseveration/Fixations

Example of Routine in which **Flexibility** is Embedded

Community Outings

- ▶ Vary the route taken when walking around the neighborhood.
- ▶ Vary walking and riding in a stroller or wagon.
- ▶ Vary the songs sung and videos watched when in the car.
- ▶ Vary who pushes the cart and the type of cart used in the store.

Social Communication: What is it?

- ▶ Social communication is the ability to use “language in interpersonally appropriate ways to influence people and interpret events” Olwang, L. B., Coggins, T.E. & Tinsler, G.R., (2001). Outcome measures for school-age children with social communication problems. *Topics in Language Disorders*, 22(1), 50-73.
- Involves the integration of social interaction, language processing, pragmatics, and social cognition Adams, C. (2005). Social communication intervention for school age children: Rationale and description. *Seminars in Speech and Language*, 26(3), 181-188.
- ▶ Involves reciprocity, turn taking, and incorporates joint attention across people, places, routines, and activities

Social Communication: Why is it important?

- ▶ Supports learning and understanding nonverbal verbal communication
- ▶ Supports participating in communication turns and later, in conversation
- ▶ Supports play development with family and peers
- ▶ Impacts developmental growth and diversity of pragmatic functions (how the child uses language)
- ▶ Often replaces problem behaviors

Building Skills to Support Social Communication

- ▶ Looks into others' eyes
- ▶ Imitates gestures, sounds and words
- ▶ Uses gestures for a variety of functions
- ▶ Uses words for a variety of functions
- ▶ Participates in multiple exchanges with gestures and/or words

Example of Routine in which **Looks into Others' Eyes** Is Embedded

Bath time/Dressing and Diapering

- ▶ Play Peekaboo with a towel, clean diaper or the child's clothing.
- ▶ Use predictable language and sensory-social games the child likes such as “I'm gonna tickle your belly...”
- ▶ When dressing the child, position him or her so he or she can easily see your face.

Video

Example of Routine in which Imitates Gestures, Sounds and Words Is Embedded

Household Activities

- ▶ Wiping highchair tray: also provide a cloth for the child and as you wipe, say “wipe, wipe, wipe.”
- ▶ Watering the garden: model the sound of water running as you water and then hand the child the hose.

Example of Routine in which Uses Gestures For a Variety of Functions Is Embedded

Playtime

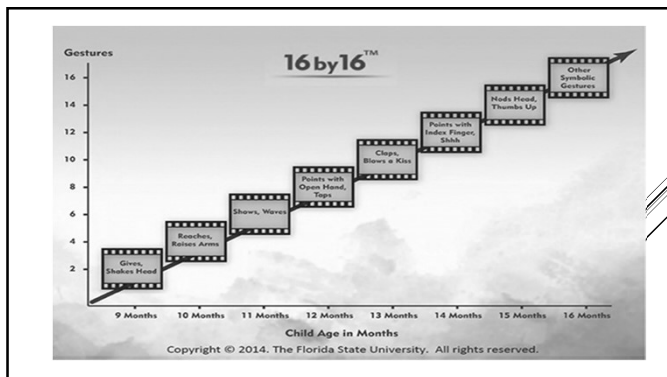
- ▶ Place some desired toys out of reach to encourage reaching or pointing to request.
- ▶ Embed gestures into pretend play such as those to represent sleeping, eating and drinking.

Video

Example of Routine in which Uses Words For a Variety of Functions Is Embedded

Grooming and Hygiene

- ▶ When brushing the child’s hair or teeth, sing a song and pause for the child to fill in words such as “This is the way we brush your ____.”
- ▶ Ask “Now what?” when the child knows what comes next in the sequence.



GESTURES

Protest	Request	Social Interaction
Archives body	Continues body movement such as bouncing after being bounced	Waves in imitation
Pushes away	Takes adult's hand on body to continue action	Waves when requested
Moves away		
Shakes head no	Reaches to be picked up	Spontaneously waves when others leave or enter
Archives body	Initiates adult's hand on body to begin action	Initiates Peekaboo or Pat-a-cake
	Leads adult to desired object	Initiates Peekaboo or Pat-a-cake
	Reaches/points across a distance	Initiates clapping
	Points	Initiates clapping
	Gives to request help, open, or more	Shows objects
	Says or nods yes to indicate a want	Gives objects
		Points to show
		Gestures in fingerplays and songs
		Says or nods yes to indicate agreement

Crawford, M. J. & Weber, B. (2016). *Autism intervention every day! Embedding activities in daily routines for young children and their families*. Baltimore, MD: Paul H. Brookes Publishing Co.

Example of Routine in which **Participates in Multiple Exchanges with Gestures and/or Words** Is Embedded

Bed time

- ▶ Talk about events of the day that were fun for the child.
- ▶ Ask relevant questions and comment about the child's statements.

Video

Regulation: What is It?

- ▶ Definitions vary by field
- ▶ Influenced by temperament, mood, emotion, attention, motor reactivity, genetics, environment, experience.....

Regulation: Why is it Important?

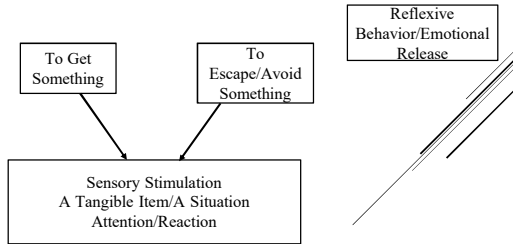
Needed for engagement, optimal learning, and successful interaction.

Building Skills to Support Regulation

- ▶ Determine the influences of Making Sense of Self, Others, and the Environment, Flexibility, and Social Communication.
- ▶ Help families and caregivers with strategies to prevent dysregulation.
- ▶ Help families and caregivers with strategies to regain regulation.

Dysregulation \rightleftarrows Challenging behaviors \rightleftarrows
Determination of the function

The Function of Behavior: Why We Do What We Do!



How Do We Know The Function?

The ABCs of behavior:

- A: Antecedent=What happened before?
- B: Behavior=What did the child do?
- C: Consequence=What happened next?

During A Session, Billy Bit Four Times!



Why Did Billy Bite ?

- ▶ He had an urge to put something in his mouth and your arm was right there.
- ▶ You transitioned to a new activity and he didn't want to stop what he was doing.
- ▶ You and Mom were talking and he wanted some attention.
- ▶ You were playing with a toy he wanted and you didn't give it to him.
- ▶ You took his hand to help him and he didn't understand what you were doing.

The Function Of The Behavior Determines Strategies Needed

FUNCTION	STRATEGIES TO TRY
Sensory and the urge to bite	Give something appropriate to bite
Difficulties with transitions	Give warnings, use transition items to help him know what is next, entice him to the next activity by using preferred items or jumping to get there
Communicating the need for attention:	Teach him appropriate ways to gain attention such as tapping others, pointing, giving, calling others
Communicating he wants something	Teach him to say or gesture "I want" or "my turn"
Communicating stop	Teach him to say or gesture "no" or "all done"; use shaping to help him learn that physical prompts are beneficial

Function? Skill Deficit? Developmental?
Emotional Response? Core Deficit?
Competing Reinforcers?



- ▶ Hakim won't drink from a sippy cup.
- ▶ Maria cries when Mom puts on her shoes.
- ▶ Nikolas won't sit at circle time.

Example of Routine in Which **Dysregulation** May Occur: Possible Reasons

Mealtime/Snack Time

- ▶ **Making Sense of Self, Others, and the Environment:** Child may not recognize thirst or hunger or may not like the feel of the bib or the straps on the highchair.
- ▶ **Flexibility:** Child may only want to eat foods of a certain color or only want a specific person to feed him or her.
- ▶ **Social Communication:** Child may not be able to communicate likes and dislikes regarding food or its presentation.

Eating Challenges and ASD

- ▶ Exact nature and prevalence estimates of eating problems in ASD are unknown though some have estimated near epidemic levels
- ▶ Food selectivity is the most common concern

Sharp, W. G., Jaquess, D. L., & Lukens, C. T. (2013). Multi-method assessment of feeding problems among children with autism spectrum disorders. *Research in Autism Spectrum Disorders*, 7(1), 56-65.

Tips for Behavioral Feeding Challenges

- ▶ Consider skill deficits, flexibility issues, sensory preferences and aversions, and instructional control.
- ▶ Proceed slowly: start with tiny bites and tiny changes in size, texture, color, flavor....
- ▶ Use positive reinforcement.
- ▶ Work on "first ___, then ___" in other routines first and then use as a strategy for behavioral feeding challenges.
- ▶ Consider working on acceptance of being fed from utensils for a short time, even for a child who eats independently.

Video

Putting It All Together: Facilitating Skills Across Developmental Domains and Targeting Core Deficits

DOMAIN	CORE DEFICIT
COGNITIVE	MAKING SENSE OF SELF, OTHERS, AND THE ENVIRONMENT
COMMUNICATION	FLEXIBILITY
MOTOR	SOCIAL COMMUNICATION
ADAPTIVE	REGULATION
SOCIAL	

Video

Putting It All Together: Case Study

Putting it all Together: Activity

Recipe for Success

Knowledge of EI + Knowledge of Typical Development + Knowledge of the Child's Family and Routines + Knowledge of Teaching Strategies and Principles of Learning + Knowledge of Regulation/Making Sense of Self, Others, and the Environment/Flexibility/Social Communication and their interrelationships = Success.

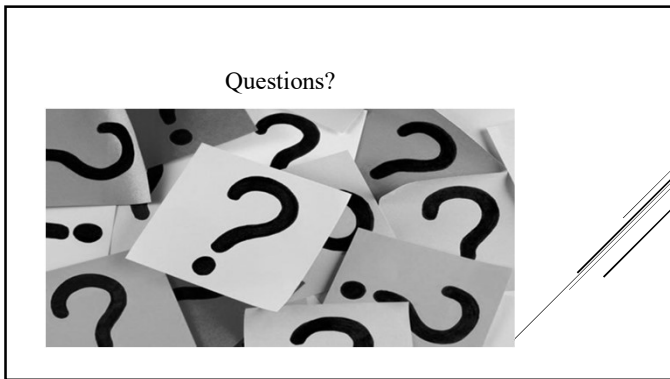


Merle's And Barb's Staples For The Recipe For Success

- ▶ Begin with **engagement** and **regulation** as they are necessary for learning.
- ▶ Consider the **function** and the **developmental appropriateness** of challenging behavior when determining the consequence.
- ▶ When targeting communication, consider **modalities** and **vocabulary** that will be powerful in a variety of settings.
- ▶ Use the **sequence of development** as a framework, concentrating on **foundation skills**, **filling in gaps** from splinter skills, and using knowledge of ASD to guide outcomes and strategies.
- ▶ Embed learning in multiple **routines** across the day considering what is functional and practical.
- ▶ Plan for **generalization** by varying the people, the setting, the materials, the words, and the prompts that you are always cognizant of **fading**.
- ▶ **Collaborate** with all team members to ensure everyone is "on the same page" as much as possible
- ▶ Choose **meaningful and practical** ways to measure progress.

Video

Conclusion: Voices from Families



Your Feedback Matters!

<http://bit.ly/2sYC7g9>

Go to link
Complete a brief survey
Thank you!

A screenshot of a survey form titled "2017 National Autism Conference E1 Days". The survey is presented in a clean, white interface with black text. It includes several sections with radio button options for responses. The sections are: "Which session did you attend?", "How long did you stay at the conference?", "How long did you stay at the conference?", "How long did you stay at the conference?", "How long did you stay at the conference?", "How long did you stay at the conference?", "How long did you stay at the conference?", "How long did you stay at the conference?", "How long did you stay at the conference?", "How long did you stay at the conference?". The survey is partially completed, with some radio buttons selected. The survey is presented in a clean, white interface with black text. The survey is partially completed, with some radio buttons selected.