Promoting Functional Communication in Children with ASD: Thinking within & outside the ABA paradigm

Biji A. Philip, Ph.D. CCC-SLP
Assistant Director, Clinical Operations
Email: philipb@kennedykrieger.org
Information, Video, and Image Disclosure

Kennedy Krieger Institute’s Center for Autism and Related Disorders (CARD) does not take responsibility for information shared in this public event. Please keep all questions general and do not disclose personal health information (PHI) when speaking aloud or submitting typed questions and/or answers. This webinar will be recorded. By attending this webinar, you are consenting to being recorded and to all screen shots taken by the webinar moderator for event purposes.
Polling – REQUIRED FOR CEUs!

Instructions:
• On your smartphone, laptop, or tablet, go to www.Slido.com or scan the QR code.
• Enter the event code: #BP09.
• Enter your name and email.
• Click “Join.”

• The online polling platform Slido will be used to track CEUs and monitor attendance.

• CEU attendees MUST respond to every Slido poll in this webinar to receive CEUs.
Feedback Survey – **REQUIRED FOR CEUs!**

- The link to the feedback survey will be emailed to attendees after the webinar has concluded.
- **CEU attendees MUST complete the feedback survey to receive CEUs.**
ASHA Disclosure Slide

Financial: None
Non-Financial: None
Which best describes you?

Start presenting to display the poll results on this slide.
Objectives

1. Demonstrate an understanding of evidence based practices for intervention in children with autism spectrum disorders
2. Demonstrate an understanding of different intervention approaches used in children with ASD (ABA, Contemporary ABA, Naturalistic interventions)
3. Identify functional relevant goals within and outside the ABA paradigm with clinical case examples.
4. Identify strategies to promote functional communication (communicative intent, communicative contexts, communication partners)
Evidence-based practices, ASHA guidelines

• What is EBP?

Figure 1. Evidence-based practices. From Evidence-based practices by ASHA, n.d. EBP Representation from ASHA
EBP-Defined

• **Clinical Expertise**
  - Derived from your trainings and clinical experiences

• **Client/Caregiver Perspective**
  - Client and family at the center of your treatment. Expectations based on priorities, values, cultural considerations.

• **External/Internal Scientific Evidence**
  - Scientific evidence (external)
  - Data from clinical observations and assessments (internal)

• What does this mean to me as a provider or as a parent?
EBP-Process

• Informed decisions are the hallmark of any effective intervention.
• How do clinicians or parents keep track of all the evidence and changing trends?
  • What is your question or research inquiry?
  • What approaches are you trying to compare?
  • What evidence is available?
  • Assess and evaluate the evidence.
  • Make informed decision.

• ASHA has a helpful section dedicated for all EBP needs and outlines the EBP process

EBP Process

• Evidence- across all aspects of the EBP triangle. Key is to look for systematic reviews and clinical practice guidelines.
EBP in intervention for individuals with ASD

- **Traditional Behavioral Approaches**
  - Discrete Trial Training

- **Contemporary ABA approaches**
  - Pivotal Response Training
  - Enhanced Milieu Teaching (EMT)

- **Developmental Social Pragmatic approaches**
  - Hanen Program
  - Peer mediated intervention
  - JASPER
  - SCERTS

- **Early Start Denver Model**
  - Naturalistic Developmental Behavioral Interventions

Prizant et al., 2004; Paul 2008; Prelock, 2009; Schriebman et al., 2015
Traditional Behavioristic Approaches (DTT)

• Discrete Trial Training (DTT): Based on the antecedent-behavior-consequence paradigm (Lovaas, 1977).

• Why does it work?
  • Adult-directed (control of variables)
  • Structured format
  • Several repetitions (mass trials for learning)
  • One-on-one interaction
  • Task broken down into discrete steps.
DTT Example for Pronouns

Point to “He is drinking”

Point to “She is drinking”
Strengths of DTT:

Children with ASD love structure

- DTT is **structured**, routine-based (ABC)
- Discrete & concrete information (e.g. *he* vs. *she*)
- Sequential learning (shaping behaviors)
  - 1-step directions, then 2-step directions
  - Matching objects-objects, objects to pictures, pictures to pictures.
- Several trials to learn target behavior/response
- Fairly **consistent administration** across service providers
- Data driven (clear criteria for mastery levels)
Challenges of DTT

• Lack of generalization (across conversational partners and conversational contexts).
• Limited flexibility of language (lack of spontaneity)

But, more importantly:
• Social communication is best learnt in NATURAL social contexts. DTT is decontextualized, unnatural
• Conversational partners and social contexts play a HUGE role in acquiring essential social communication skills in children with ASD

Prizant et al. 2004, Schreibman et al., 2015
Contemporary ABA

- PRT, Milieu teaching target specific target behaviors in **semi-structured contexts**
- **Child-centered** mostly, but environment/activities engineered for communicative opportunities.
Strengths of Contemporary ABA

- Child-Centered, some environmental control by adult
- Motivating for child
- Natural consequences/reinforcements
- Increase intentional communication (requesting, turn-taking, asking & responding to questions)

Koegel et al.(1987); Frost & Bondy (2002); Yoder & Warren (2002)
Challenges of Contemporary ABA

• Planned teaching moments only during specific periods of the day
• Certain pivotal behaviors targeted & responses recorded-less focus on multi-modal communication
• Less focus on developing relationships, socio-emotional growth

Prizant et al. (2004)
Developmental Social Pragmatic Approaches (DSP): Strengths

• Teaching in naturalistic contexts
• Focus on communicative intent/function
• Multiple opportunities throughout the day across conversational partners and conversational contexts
• Based on language development and socio-emotional development
• Facilitative-interactive style; hence more spontaneity
Challenges of Conventional DSP approaches

- Harder to gain consistency across conversational partners.
- More evidence required to validate the plethora of DSP models.

Ingersoll et.al (2012)
The intervention approach I most commonly use with my child, patient, or student is based on:
The ABA dilemma

- **Research for ABA based interventions:**
  - Structured format
  - Strong empirical evidence
  - Prescriptive process

- **THEN: Why is there so much debate?**
  - Lack of generalization
  - Lack of spontaneity in language
  - Less emphasis on communicative intent, conversational contexts and conversational partners

- **SO: How do these factors impact intervention?**
  - Goal selection
  - Strategies to target goals
  - Generalization

Tavers (2014)

Prizant et al. (2004)
Importance of functionally relevant goals

- Social deficits are hallmark symptoms of ASD
- Parents, caregivers, teachers want children with ASD to:
  - Request
  - Protest
  - Comment
  - Ask questions, provide information
  - Shared enjoyment and engagement in interaction
- Are ABA-based interventions targeting goals that are functional/meaningful for the child & family?
Revisit the EBP Triangle

External/Internal Scientific Evidence

Clinical Expertise

Parent/Client Perspectives
What words come into your mind when you think of ABA approaches?
Challenges in ABA-based interventions for functional communication

• Tendency to follow the PRESCRIBED goals & goal sequence
• Acquisition Goals vs. Maintenance Goals
• Frequency of opportunities to practice DTT learned behavior
  • Vary context, vary communication partner
• Contextualizing ABA goals in child’s routine
Functionally Relevant goals

• Goals that are meaningful for the child and family
• Goals that result in outcomes across developmental domains.
• Goals that are embedded within the intervention approach and provide multiple opportunities for the child to learn
Functionally Relevant Goals within & outside ABA Paradigm: Clinical Case Examples

**Case scenario 1**: Child with ASD is aversive to food and anything related to food, but loves to spin and run. Limited receptive & expressive language.

- **DTT**:
  - (a) Identify common objects in pictures:
    - Plate/spoon versus ball/car
  - (b) Identify common actions in pictures:
    - Eating/drinking versus running/spinning

- **PRT**:
  - Select toys or activities that incorporate common actions but related to food (spin the pizza bread)
  - Intersperse motivating behaviors with target behaviors
Functionally relevant goals contd.

- **Case Scenario 2**: Child has a large receptive language vocabulary and loves books. He cannot tell his mom that he is hungry *(Parent perspective)*

- **PECS**:
  - Request preferred food item
Case Scenario 2

- **DTT**: Difficult to teach abstract terms:
  - Incorporate principles of sequential learning
    - First: Eating versus drinking
    - Then: Hungry versus thirsty
Case Scenario 2: Functionally relevant goals contd.

**NDBI:**
- Teach concept through contextualized learning
- Pivotal behaviors: Motivation; Child Initiation; Response to Multiple Cues; Self-Regulation
  
  (a) **Motivation & Child Initiation**: Book activity (select hunger themed books—*The Very Hungry Caterpillar*)
  
  (b) **Response to multiple cues** (laminated materials around the room, identify food items in scavenger hunt)
    - Behaviors indirectly targeted (joint attention, following 1-step directions, identify objects, labeling, relation between hungry & eating)
  
  (c) **Self-regulation**
    - Wait for turn to get object
    - Block access to preferred item
Book example: Bringing it to life

Manipulatives on wall

Owl in basket

Bear on carpet

Stuffed animals in strategic locations
Case Scenario 3: Functionally relevant goals

Child has huge anxiety, forces himself to vomit when he enters therapy room, cries throughout PRT play time and circle time. Mom informs you that he hates table tasks, hence DTT will be a struggle. You as a clinician identify that he stops crying only when you sing.

**DTT:** How do you as a clinician use that information for DTT?
- Transition song to prepare (typical ABA paradigm)
- Identify highly reinforcing toys that are motivating for him (typical DTT paradigm procedure, PRT procedure)
- Deliver instruction—how and without triggering meltdown?
  - DTT instruction sung (atypical DTT paradigm)
  - Use songs that target child specific DTT goals (motor imitation, follow directions—atypical DTT paradigm)
  - Slowly move to verbal delivery of DTT instruction

What was the functionally relevant goal?
Case Scenario 4: Functionally relevant goals

- Child with ASD—negative experience in a school setting (family history of bad school experience for older sibling), hates coming to school, hates paper-based tasks (pictures, books), limited receptive and expressive language. Only thing child loves is “cars” and sand play.

- DTT is a definite no-no; but, DTT is important to teach target goal
  - Out of therapy room contexts (sand play, transitioning to room using scooter, scavenger hunt)—PRT, DSP approaches
  - Cars used as reinforcements (traditional ABA paradigms)
Case scenario 4 contd.

- Child’s interest used to identify books & plan activities (car-related books, PRT)
- Car races-alternate to traditional DTT table task (atypical DTT)

Find big and small cars

Car races as an alternative way to do a DTT task.

Sorting task at table
Strategies to Promote Functional Communication

• **Communication Contexts:**
  • Settings: School, Home, Community
  • Activities: Play, Reading, Conversations

• **Communication Partners:**
  • Parents, caregivers, extended family
  • Educators (teachers, SLPs, OTs)
  • Peers

• **Embedded learning opportunities** throughout the day
  • Target goals throughout the day
  • Child’s daily routines (arriving at school, recess, snack time)
Communication Contexts: Play

Visual schedule at play

Find chair based on color cards
Communication Contexts: Play at School-Types of Play

Mouthing

Stacking
Communication Contexts: Play at School/Home

Functional Play, Pretend Play

Role play
Communication Contexts: Play at School & Home

• Select toys motivating for YOUR child!
• What all can I do with this toy? (play affordances)
Assigned Play areas and Communicative Temptations

• Designated play areas and containers for toys.

• Place items in clear plastic bags or closed containers, away from access (communicative temptations)
Communication Contexts: Play at Home

• Toys not ALWAYS needed to play with your child
  • Tickles, chase games, running races, throw/catch ball

• The key is **HOW** do you play with your child?
  • Face to face with your child--Eye contact is IMPORTANT!
  • Exaggerated facial expressions—make a BIG deal of each play action.
  • Model behavior, provide support, and with time fade prompt
  • Say and do the target behavior the same ALL the time.
  • PAUSE and WAIT!
Communication Contexts: Shared Reading Time (School & Home)

• How do you sit?
Communication Contexts: Shared Reading Time (Book Selection)

- Books that are repetitive, use textures
Communication Contexts: Shared Reading Time (Adapting texts)

• Modify language in books to target goals

• Make a routine
  • Introduce title of book
  • Have your child request to “open the book”, “turn page”
  • Take turns reading the book
  • Use short phrases and repetitive lines
Communication Contexts: Conversations at Home & School

- Be your child’s translator
- Expand on child’s language.
- Use of social stories, video modeling, role play
- Use of AACs as an alternative or augmentative communication

PECS

AACs
Communication Contexts: Conversations at School

- Play groups
- Focused language stimulation groups (Language Buddy)
Pick one strategy you will incorporate in your interventions or interactions with your child:

1. Start presenting to display the poll results on this slide.
Summary

- **Individualized** intervention to support the child’s learning in his/her environment
- Capture the “teachable” moment
- Do NOT remove the child from the social context—SUPPORT instead.
- Multiple opportunities to learn target goals
- THINK outside the box…think from the child’s perspective
- COLLABORATION is KEY!
References


Question & Answer (Q&A) Segment.

Instructions: Toggle over to the Q&A section in Slido to enter questions.

All questions are moderated.
Audience Q&A Session

Start presenting to display the audience questions on this slide.