

Targeting Core Deficits of Autism in Toddlers

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ASHA Disclosure Slide


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Where is everyone joining from today?

 Start presenting to display the poll results on this slide.

Today's Agenda


1. Core deficits of ASD in toddlers
2. What the literature tells us about early intervention programs for children with or at-risk for ASD
3. Discuss a novel early intervention program targeting the core deficits of ASD in toddlers
4. Discuss how parents can use strategies at home to target early language, social, and play delays

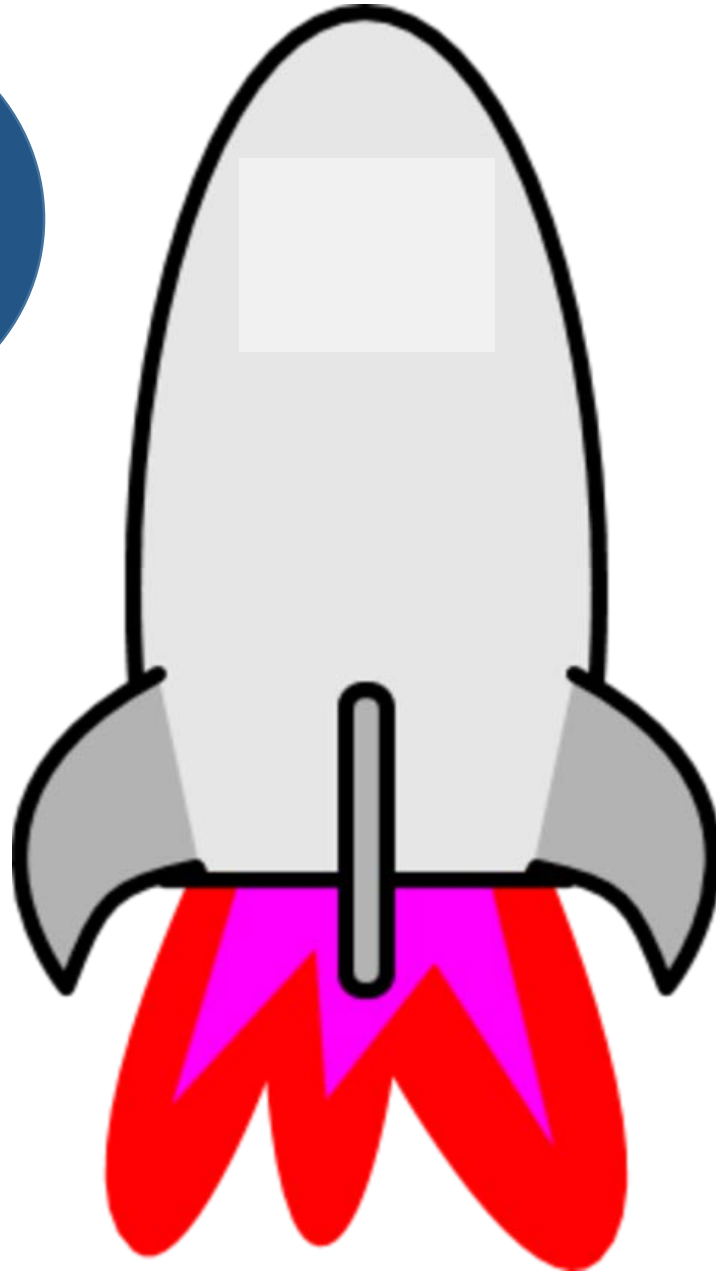
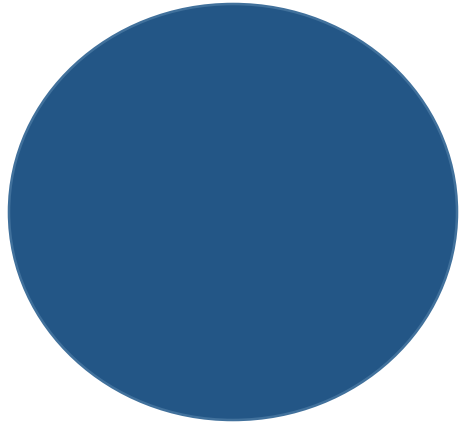


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What makes you interested in this topic?


(Parent of a child with autism, caregiver of a child with autism,
SLP/OT/Teacher/psychologist/physician/social worker/other)

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Are you familiar with the DSM-5 criteria for ASD?

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DSM-5: Autism Spectrum Disorder

Diagnostic criteria

- A. Persistent deficits in social communication and social interaction
- B. Restricted, repetitive patterns of behavior, interests, or activities



DSM-5: Autism Spectrum Disorder (A.1)

A. Persistent deficits in social communication and social interaction

1. Deficits in social-emotional reciprocity

- Limited sharing interest (giving/showing objects, initiating joint attention)
- Limited back and forth interactions (imitation skills, maintaining an interaction, social endurance)
- Limited responsiveness (response to name, response to joint attention)
- Limited sharing positive affect



DSM-5: Autism Spectrum Disorder (A.2)

A. Persistent deficits in social communication and social interaction

2. Deficits in nonverbal behaviors for communication

- Limited eye contact
- Limited facial expressions
- Limited gestures
- And limited integration of these nonverbal behaviors with verbal behaviors
- Atypical communicative behavior: using another's hand as a tool



DSM-5: Autism Spectrum Disorder (A.3)

A. Persistent deficits in social communication and social interaction

3. Deficits in developing, maintaining, and understanding relationships

- Limited interest in peers
- Limited play with others (self-directed, flits from thing to thing, limited imitative or pretend play)



DSM-5: Autism Spectrum Disorder (B.1-4)

B. Restricted, repetitive patterns of behavior, interests, or activities

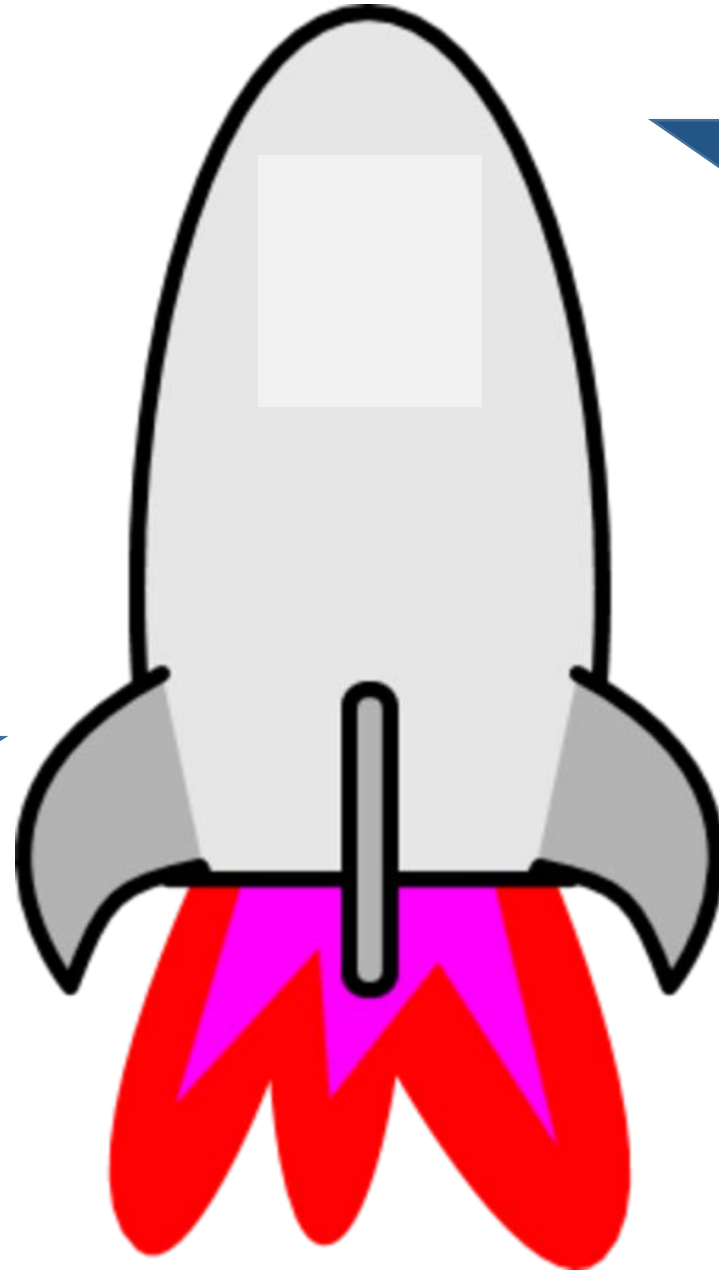
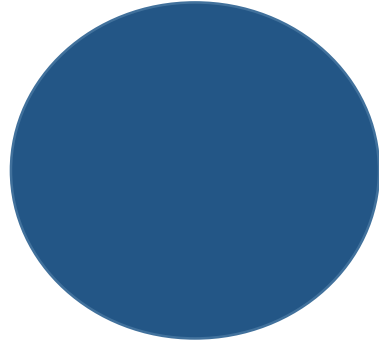
1. Repetitive motor movements, object use, or patterns of speech (flapping/ posturing, repetitive play actions, echolalia, scripting, pronoun reversal)
2. Insistence on sameness, difficulties with transitions (requires activity to be performed in same way, extreme reactions to change/transitions)
3. Restricted interests, strong attachments/preoccupations (unusual interests, intense interest)
4. Hyper- or hypo-active sensory responses (visual inspection, noise sensitivity, sensory seeking behavior)



Informed treatment planning

- Evaluation Results (language testing, ADOS or TELE-ASD-PEDS)
- DSM-5 (core deficits of autism)
- Developmental Sciences
- Zone of Proximal Development
- Parent priorities





What next?

- We know the “what”
- Now we need to know “how”



“They” tell us that EI must...

- Be intensive
- Have a parent/caregiver education component
- Utilize the child’s natural environment
- Utilize child-preferred materials
- Utilize the child’s daily routines and activities
- Provide contingent reinforcement
- Focus on engagement between the child and adult
- Focus on developmentally-appropriate goals and objectives



Naturalistic Developmental Behavioral Interventions: Empirically Validated Treatments for Autism Spectrum Disorder

Laura Schreibman · Geraldine Dawson · Aubyn C. Stahmer ·
Rebecca Landa · Sally J. Rogers · Gail G. McGee · Connie Kasari ·
Brooke Ingersoll · Ann P. Kaiser · Yvonne Bruinsma ·
Erin McNerney · Amy Wetherby · Alycia Halladay

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Abstract Earlier autism diagnosis, the importance of early intervention, and development of specific interventions for young children have contributed to the emergence of similar, empirically supported, autism interventions that represent the merging of applied behavioral and developmental sciences. “Naturalistic Developmental Behavioral Interventions (NDBI)” are implemented in natural settings, involve shared control between child and therapist, utilize natural contingencies, and use a variety of behavioral strategies to teach developmentally appropriate and

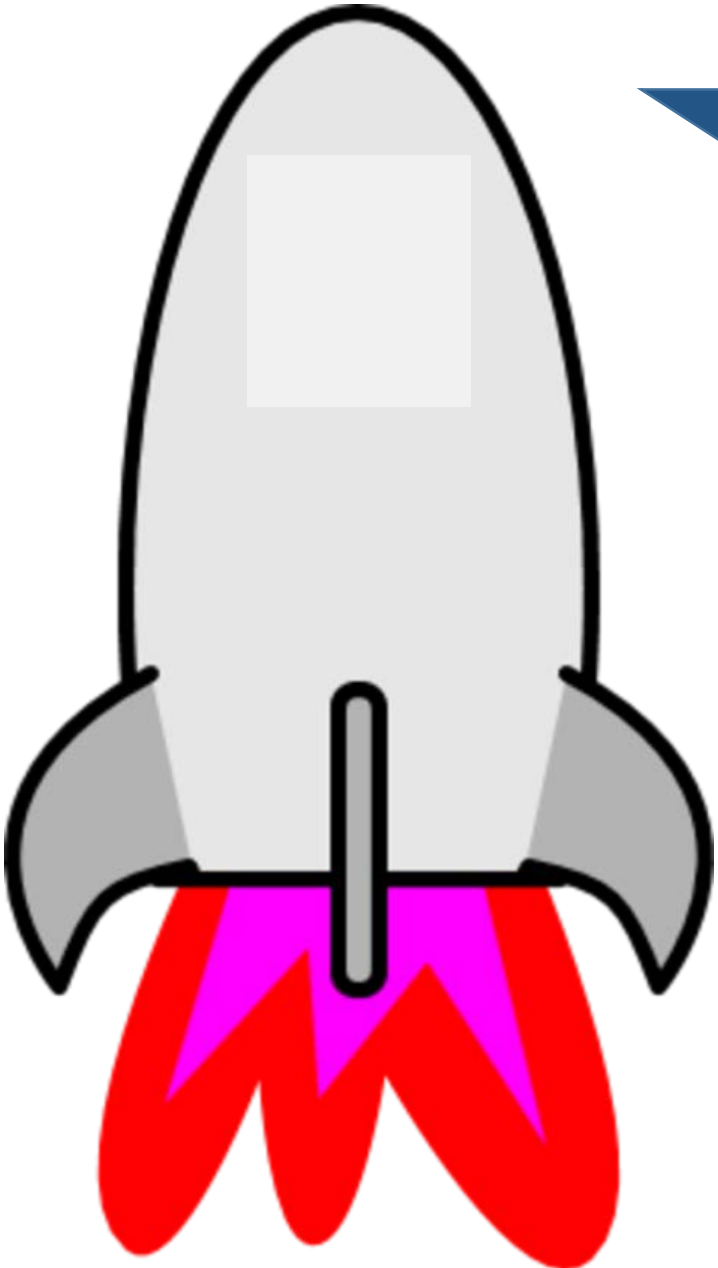
prerequisite skills. We describe the development of NDBIs, their theoretical bases, empirical support, requisite characteristics, common features, and suggest future research needs. We wish to bring parsimony to a field that includes interventions with different names but common features thus improving understanding and choice-making among families, service providers and referring agencies.

Keywords Early intervention · Naturalistic · Developmental · Behavioral



Ecological
Validity
Child-centered

Core
Deficits



Developmentally-
appropriate

NDBI



What is our first priority when it comes to treating toddlers with ASD?

- **Engagement**
- Comedian DJ Pryor and his son Kingston
- <https://www.youtube.com/watch?v=AY35eXTKVLY>



States of Engagement

- **Not engaged** (child is not engaged with objects or people)
- **Onlooking** (child is looking at something/someone but is not engaging with it)
- **Engaged with person only** (child is not using any objects)
- **Engaged with object only** (but child is not with the person)
- **Supported Joint Engagement** (engaged with object and person, but the person is doing all the work)
- **Coordinated Joint Engagement** (child is initiating the engagement with object and person) –in TD this occurs in the 2nd year of life

Bakeman, R. & Adamson, L. (1984).



Achievements for Little Learners



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Have you heard of the Achievements program at Kennedy
Krieger Institute?

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ALL

- Children were randomized into ALL intervention (direct intervention, parent coaching, and a parent education class) or parent education class only
- Children in the ALL intervention made better gains than children whose parents received education only
- Highlights the need for direct parent coaching for meaningful change

(Landa and Sharpless 2018)



Additional support in the literature

- Parent-mediated interventions can have a positive effect on development
 - Improving engagement between parent/child predicts joint attention skills 1 year later and subsequently adolescent language (Siller and Sigman 2002, 2008)
 - After parents trained in 12 one-hour session of parent mediated intervention when their child was 6-15 months of age, children had better outcomes in language and NV cog skills at age 36 months than community sample (Rogers et al. 2014)
 - Children whose parents received coaching had significantly better social and receptive language gains than kids whose parents did a monthly parent education class (Wetherby and colleagues 2014).



Achievements for Little Learners

- Play (with and without toys)
- Music
- Book Sharing
- Snack
- Sensory
- Chores, caregiving routines, daily living routines
- Transition periods



ALL Ingredients

- Child learns in natural contexts and child-preferred routines
- Promote predictability to scaffold the child's ability to actively engage
- Utilize ABC sequences with natural, contingent reinforcers
- Tempt child to communicate (pausing, environmental arrangement)
- Promote imitation
- Prompting and prompt fading
- Encourage spontaneity of skills and promote generalization
- Coaching parents encourages carryover at home, thereby increasing treatment intensity



Coaching Parents

WE REMEMBER

10% of what we read

20% of what we hear

30% of what we see

50% of what we see and hear

70% of what we discuss with others

80% of what we personally experience

95% or what we teach others

- Edgar Dale



Coaching Parents: Be specific

- How to engage your child and keep them engaged
- How to create meaningful routines
- How to use the family's routines and materials
- How to target their child's specific needs
 - Language
 - Social
 - Play



Coaching parents: Be redundant

- Give redundant exposure to the intervention strategies
 - In a variety of activities
 - With a variety of toys and objects
- Practice, practice, practice
- Ensure understanding
- Then...



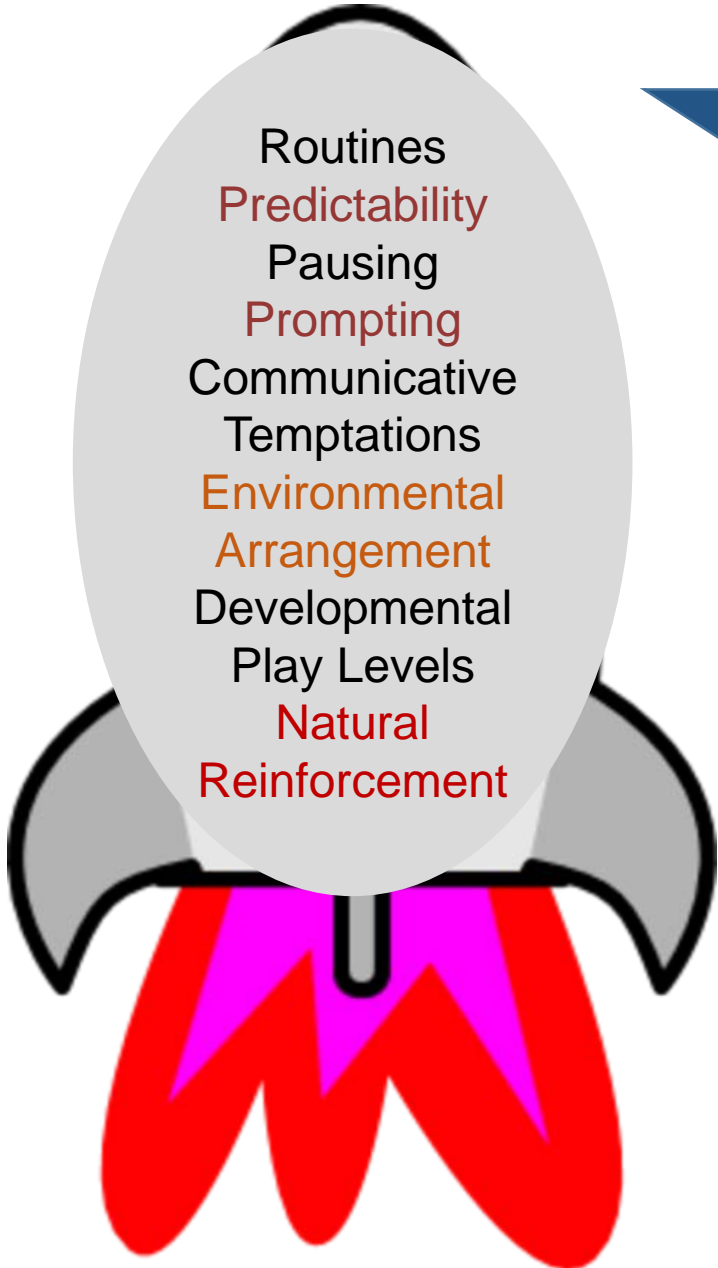
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What is another example of a social game or daily living routine that you can adapt to maximize a child's active engagement and target goals?

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Ecological
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Deficits



Developmentally-
appropriate

NDBI



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What is one thing you learned today?

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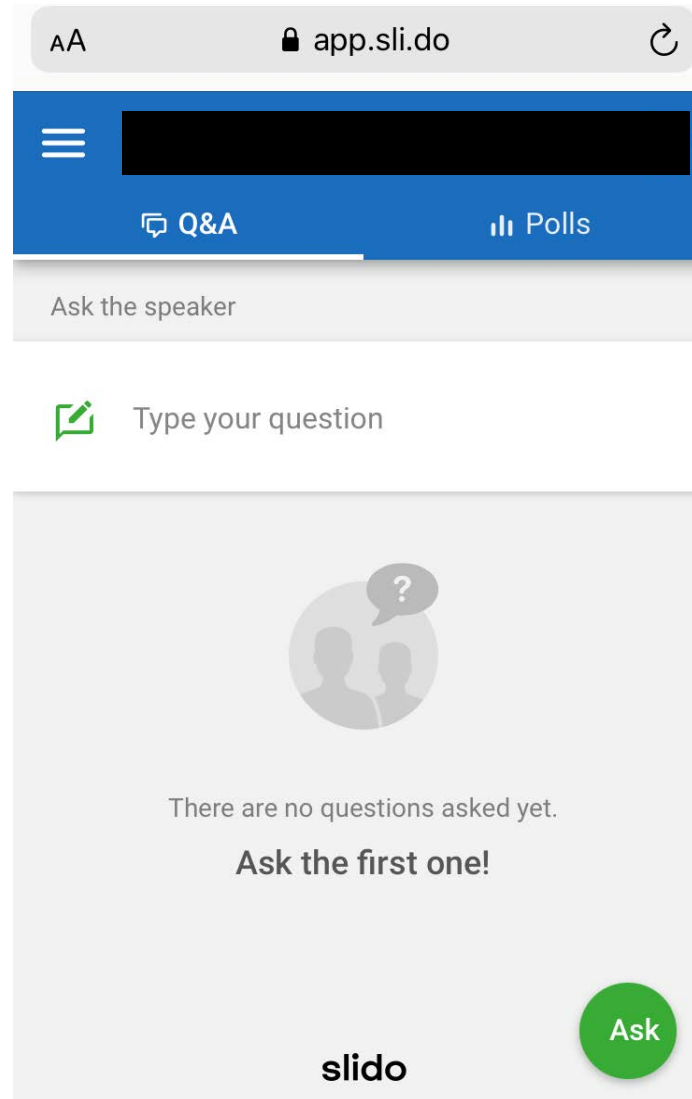
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Audience Q&A Session

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