Social Communication Intervention for Young Children with Autism Spectrum Disorders

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Overview

– Autism Spectrum Disorder
– Targeting Presymbolic Social Communication Skills
– Transitioning to Symbolic Communication
– Wrap-up & Questions
Autism Spectrum Disorder
Prevalence and Diagnosis

• Prevalence 1:88 children
  (CDC, 2012)

• Boys vs. Girls 4:1
  (Fombonne, 2005)

• Average age of diagnosis is 3-4 years
  (Zwaigenbaum et al., 2007)

• Parents concerned 18-24 months of age
  (Zwaigenbaum & Stone, 2006)
Early Characteristics of ASD

Language Impairments
25% fail to develop speech (Volkmar et al. 2004)

Impairment in Joint Attention

Deficits in Earlier-emerging Social Communication Skills
(Carpenter, Nagell, & Tomasello; Mundy, Sigman & Kasari, 1990)
Autism Spectrum Disorder
DSM-V

Restrictive, repetitive behaviors & interests

Social Communication Deficits
Social Communication

What do we mean by “social communication”? 
Social Relating + Communication

Understanding & expressing emotions, thoughts & feelings

Receptive & expressive language
Targeting Social Communication Skills in Young Children with Autism

Joint Attention & Social Play
Targeting Early Social Communication Skills

SYMBOLIC PLAY
JOINT ATTENTION
Triadic Joint Attention (9months)
JOINT ATTENTION GESTURES
GRASP
Giving
Reaching
Pointing
Joint Attention

• Responding to Joint Attention
• Initiating Joint Attention
  – Giving
  – Reaching
  – Showing
  – Pointing
• TD Skills emerge 9-18 months
Joint Attention in TD Children

• By 12 months most infants display all aspects
  
  – Sharing attention (alternating eye gaze)
  
  – Following attention of another
  
  – Directing attention  (Carpenter et al., 1998)
Joint Attention in Autism
TARGETING SOCIAL COMMUNICATION SKILLS

SYMBOLIC PLAY
Typical Play Development

Emerges in a smooth trajectory over 4 phases:

• Exploratory Play
• Relational Play
• Functional Play
• Symbolic Play
Exploratory Play
Emerges 4-6 months

Child explores the physical properties of toys by mouthing, banging, etc…
Relational Play
6-12 months

Child starts to put 2 toys together

(e.g. stacking blocks, putting shapes in sorter)
Functional Pretend Play
12-16 months

Using a toy as it is supposed to be used
Symbolic Pretend Play
16-30 months

Child gives objects identities other than intended
(e.g. feeding a doll, pretending toy food is hot)

(Jarrold, Boucher & Smith, 1993; Libby et al., 1998; Williams, Reddy, & Costall, 1996)
Let’s Play!

What does play look like at each of the 4 levels?

– Exploratory
– Relational
– Functional
– Symbolic
Play in Typical Development
Play for Students with Autism Spectrum Disorder

• What do you notice about this child’s play skills?

• What do you notice about this child’s language skills?
Play in Autism
Play in Autism

• Less elaborate & more repetitive
  (Williams, Reddy & Costall, 1996)

• Longer period engaging in exploratory play
  (Jordan & Libby, 1997)

• Less time than TD peers engaging in functional or symbolic pretend play
  (Jarrold, Boucher, & Smith, 1993)
Clinical Implications

• How would you target play skills for the child in our video?
  – Current level of object play?
  – Next level of play?
  – Play behaviors to model?
“They’re not playing in kindergarten”

- ASAP Focus Group Participant
3 Reasons why is it important to target play for children with ASD?

1. Play is the context for socialization for young children

2. Play skills & language skills develop together
   (McCune, 1995; Mundy et al., 1987)

3. Targeting play skills leads to better play skills & better language skills
   (Kasari et al., 2008)
PARENT-CHILD PLAY
FATHERS ARE NOT MOTHERS
Play with Moms
Play with Dads
Why Study Fathers?

Shift in the role of US fathering
(Pleck & Masciardelli, 2004)

Primary caregiver for 24% of preschoolers with working mothers
(US Census, 2006)

Fathers of children with ASD experience significantly less stress than mothers
(Hastings et al., 2004)

Fathers have communication and play styles that differ from mothers
Fathers Are Underrepresented in Autism Research

- Systematic review (Flippin & Crais, 2011)
- SSD & controlled group
- Participants: children age 2-5 years
- DV: communication skills
- IV: Parent agent of intervention

26 (11 group, 15 SSD)

3 studies (father participating in intervention)

1 study more than one father participant
Transitioning from Prelinguistic to Symbolic Communication

3 Fs: Form, Fit, Function
Form
Fit
Individuals need individualized communication intervention

Pivotal Communication Skills

- Imitation
- Vocalizations/early words
- Joint Attention
- Object Play

Evidence-based Intervention Approaches

- Parent Responsiveness
- Discrete Trial Training
- PECS
- Milieu Therapy
Come here! Get your pajamas.

It’s bed time.

Here are your train pajamas.

Get on pajamas.

Where is your diaper?

Get dressed!

Look, your train pajamas.

Leave them on!
Black hat. Let’s put it on top.

Put on the nose.

You have the eyes.

Then we’ll put on the mouth.

I like your mouth!

One two arms.

You found the shoes!

Linguistic Mapping
Transitioning from Prelinguistic to Symbolic Communication: 3 Fs

**Form**
Speech, ASL, AAC

**Fit**
Match prelinguistic communication characteristics to most effective EBP approach

**Function**
Understand the benefits and limitations of each approach for targeting functional communication
Parent Responsiveness

• Early responsiveness is a predictor of language outcomes (McDuffie & Yoder, 2010; Siller & Sigman, 2002, 2008)

• Maternal responsiveness mediates the effectiveness of certain interventions (Yoder & Stone, 2006)

• Targeting responsiveness improves language outcomes (Aldred, Green & Adams, 2004)
Father Responsiveness

Better developmental outcomes for at risk & TD children: improved:

• emotional regulation,
• cognitive
• language,
• play development

(Magill-Evans & Harrison, 2001; Shannon et al., 2002)

Fathers’ responsiveness and outcomes for children with ASD?
Dads actively controlled play
Physical/ Rough & Tumble Play
Prelinguistic Milieu Training

“In sight but out of reach”

Organize environment and provide teaching & feedback
– Incidental Teaching
– Follow child’s lead
– Expectant waiting
– Modeling
Child Characteristics:
High imitation
Spoken words (10)
emerging

Discrete Trial Training

“Do this”
“Say ...”

Trains vocalizations and verbalizations via imitation, shaping and rewards
Repetitions, practice
Child Characteristics:
Low Joint Attention
High Object Exploration

PECS
- Behavioral
- 6 Training Phases
- Low-tech AAC system
- Exchange-based communication

Source: silverliningmm.com
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<thead>
<tr>
<th>Phase</th>
<th>PECS Training</th>
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<tbody>
<tr>
<td>1</td>
<td>Physical Exchange</td>
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<tr>
<td>2</td>
<td>Distance &amp; Persistence</td>
</tr>
<tr>
<td>3</td>
<td>Picture Discrimination</td>
</tr>
<tr>
<td>4</td>
<td>Sentence Structure “I want ...”</td>
</tr>
<tr>
<td>5</td>
<td>Responding to “What do you want?”</td>
</tr>
<tr>
<td>6</td>
<td>Comments “What do you see?”; “What do you have?”</td>
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Bondy & Frost, 2002
Function
Friday, around 3:00

Greeted your friend.

Read & answered your email.

Requested a coffee.

Repaired a breakdown.

Asked a question via text.

Posted a selfie from Cullowhee on Facebook.
Discrete Trial Training Functional Communication?

• Produces passive style of communication

• Little generalization to functional use of language

(Paul & Sutherland, 2005)

“I am five years old.”
Discrete Trial Training
Functional Communication?

• Produces passive style of communication

• Little generalization to functional use of language

(Paul & Sutherland, 2005)

“I am five years old.”
PECS
 Fully Functional Communication?

Primarily trains requests

“Comments” responses to adult prompt
   – What do you want?
   – What do you see?

Other, early developing communicative functions (e.g. protests) are not taught
<table>
<thead>
<tr>
<th>Protests</th>
<th></th>
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<tbody>
<tr>
<td>I don’t like it</td>
<td>You don’t understand</td>
<td>I hate that</td>
</tr>
<tr>
<td>I don’t want that</td>
<td>I don’t want to</td>
<td>Wrong</td>
</tr>
<tr>
<td>Leave me alone</td>
<td>Unfair</td>
<td>Whoops</td>
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Parent Responsiveness & Milieu Therapy
Towards Functional Communication

• Naturalistic & Social-Pragmatic Interventions

• Teaches language along with other social skills within context of child’s environment and interests

• Child taught to both respond and initiate

• Target expression of full range of wants, thoughts, and feelings
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Wrap-up & Questions

– Autism Spectrum Disorder

– Prelinguistic Social Communication Skills
  – Joint Attention
  – Symbolic Play

– Transitioning to Symbolic Communication
How you can help!

• Parent Survey Study

• Pilot Dad-implemented intervention

• Email: flippinm@appstate.edu

Thank you!

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