Strategies for Assessing & Facilitating the Social Interaction of Children with ASD and their Typical Peers

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Peer Interactions & Friendship Behavior

• Powerful predictor of independence & formation of adult relationships (Brown et al., 1996; Guralnick, 1992; Strain, 2001)

• Deeper relationships form focusing on sensitivity & a peer acceptance (Goldstein & Morgan, 2002)

Peer Interactions & Friendship Behavior

Children with ASD

• Spend less time interacting with peers than do children without disabilities & those with other disabilities (Buhrenstein & Furman, 1986; Lord & Magill, 1989)
  • Lack of opportunity
  • Lack of familiarity & experience
  • Lack of needed social skills
Peer Interactions & Friendship Behavior

KEY Social behaviors to identify & support in preschool (Strain, 1983; Strain & Hoyson, 2000; Tremblay et al., 1981)

- Sharing
- Showing affection
- Suggesting play ideas
- Assisting others
- Sustaining encounters
- Engaging in reciprocal interactions

Perspective taking challenges compromise the ability to decrease egocentric interaction in older children

- Explore identities, beliefs & aspirations through discussion & problem solving (Goldstein & Morgan, 2002)
- Identify understanding & use of complex language forms, literal vs. abstract meanings
- Assess opportunities to engage with peers

Assessment Tools

**Social Reciprocity Scale (SRS)** (Constantino et al., 2000)

- Parent & teacher input
- Examines 7 categories of behavior
  - Recognition of social cues
  - Interpretation of social cues
  - Response to social cues
  - Tendency to engage socially
  - Core features of autism
  - Language deficits
  - Miscellaneous symptoms
Assessment Tools

The System for Observation of Children’s Social Interactions (SOCSI) (Brown et al., 1996)

Evaluate behaviors

*social behavior* => individual action of one child on another
*social interaction* => reciprocal exchange among 2 or more children

12 social goals => intended outcomes
15 behavioral strategies => social behaviors to achieve goals

Outcome assessment => succeeds or fails interaction purpose

Assessment Tools

Assessment of Social & Communication Skills for Children with Autism (Quill, 1995; Quill, Bracken & Fair, 2000)

• Inventories social & communication behaviors across contexts
• Guides understanding of child to foster discussion around core deficits
• Promotes educational planning

Assessment Tools

Social Skills Rating System (SSRS) (Elliot, 1990)

• Examines social skills (e.g., cooperation, assertion, responsibility, empathy, self-control) impacting relationships among students & teachers, peer acceptance & academic competence
• Uses parent, teacher & student rating forms
• Examines frequency & importance of behavior
• Links to intervention planning
• Is standardized & norm referenced
Assessment & Intervention Tool
Social Skills Improvement System (SSIS) Rating Scales (Gresham & Elliot, 2008)

- Age range: 3 to 18
- SSIS-SEL (Social Emotional Learning ed., 2017)
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- Reading level: Parent-5th grade
- SSIS Classwide Intervention Program (CIP) (2008)
- Student-2nd grade

Components:
- Social skills
- Problem behaviors
- Academic Competence

Scoring:
- Frequency and importance ratings
- Standard scores and percentiles

Peer Interventions

Early Research
- Immersion of children with socially active peers (Brickey, 1978)
- Increased access to socially competent peers (Apel et al., 1977)
- Training peers as interventionists (Cobbett, 1992; Huysen et al., 1994; Kehle et al., 1993; Lee & Olson, 1992; Olson & Shrem, 1984; Roeyers, 1998; Stein & Cordisco, 1994; Stein et al., 1996)
- Educating children with ASD & their peers (Kamps et al., 1992; Simpson et al., 1997)
- Establishing group friendship activities (Cooper & McEvoy, 1996; "buddy skills" (English et al., 1996)

FINDINGS
Children with ASD who have opportunities to experience peers without disabilities will increase their:
- Time spent in interaction
- Responsiveness to partner initiations
- Attempts to initiate (Goldstein et al., 1992; Roeyers, 1996)
Facilitating Interactions

**Proximity** ➞ placing typical peers who are socially competent with children with disabilities & directing them to play with their peers w/out specific training

**Prompting & Reinforcing** ➞ combination strategy where socially competent peers are trained to prompt a child with disabilities to play & then to reinforce the child’s responses

**Antecedent Prompting** ➞ child w/ASD is paired with a socially competent peer who is instructed to remain in proximity to the child w/ASD; teacher provides periodic prompts to the child w/ASD; teacher waits for a response; if there is none, physical prompts are provided (Simpson et al., 1997)

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Facilitating interactions

**Peer Initiation** ➞ typical peers are taught to make social initiations with children with disabilities; taught to initiate with children w/ASD in the context of sharing, suggesting play ideas, showing affection & providing assistance (Lee & Odom, 1996); teachers taught to remind typical peers to use their initiation strategies with the child w/ASD while in the classroom

**Peer Tutoring** ➞ used in inclusive classrooms; children work in dyads with socially competent peers; peer tutors informed of characteristics of autism; teacher helps to define & structure tutoring task (e.g., materials to be used, directions, RF & ways to manage inappropriate behaviors); informal interaction periods scheduled between tutoring tasks; useful in elementary, middle & high school (Simpson et al., 1997)

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Facilitating interactions

**Peer Mediation** ➞ teaching typical peers to initiate play with children with ASD, makes use of:
- role play
- adult cues re: play materials & activities
- reinforcement
(Strain & Cordisco, 1994; Strain et al., 1996)

**Peer Networks** ➞ individualized interventions that occur outside the classroom which encourage social connections
- Network facilitators
- Peers with & without ASD
- Orientation and training to establish shared interests & opportunities to connect
(Carter et al., 2013; Hochman et al., 2015)
Effectiveness

3 students with ASD & typical peers in 1st grade using social skills groups
RESULTS: >interactions & time engaged
(Kamps et al., 1992)

Group of typical peers & children with disabilities
RESULTS: >interactions among typical peers & children with disabilities < stereotypic or unusual behaviors (Lee & Odom, 1996)

Effectiveness

85 children w/ASD & 48 typical peers, 5-13yrs
Trained peers through video viewings of children with ASD, instruction about ASD & role playing
RESULTS: >time engaged, sustained interactions & response to initiations; <self stimulatory behaviors (Roeyers, 1996)

Children w/ASD, 2 years of TX
RESULTS: < symptoms of autism >developmental progress on cognitive & language measures (Strain et al., 1996)

Effectiveness

Facilitative strategies taught to typical peers
Reinforced both typical peers & children with ASD
RESULTS: >communicative interaction in preschoolers with ASD >turn-taking & on topic responses < in nonsocial behavior (Goldstein & Wickstrom, 1986)
Effectiveness

Typical peers, 3 years old taught to engage withdrawn peers

**RESULTS:** engagement of peers
(Strain, 1977; Strain et al., 1977)

Elementary school students with ASD
Taught greeting, conversation & play over 8 sessions

**RESULTS:**
- greetings & play
  - Less success in conversation
  (Barry et al., 2003)

Effectiveness

Museum-based art program

**RESULTS:**
- typical peers>directed communication toward children with ASD during art activities
  (Schleien et al., 1995)

3 TP & twins with ASD (5-6 years)

Peer training taught attention directing behaviors & language to promote JA with adult coaching

**RESULTS:**
- JA, symbolic play & language use with twins
  (Zercher et al., 2001)

Effectiveness

Peer training & direct instruction

**RESULTS:**
- taught requesting, commenting & sharing during game play
  (Morrison et al., 2001)

39 students with ASD, 7-14 years

Peer training comparing social skills support to cooperative learning groups

**RESULTS:**
- social interaction among peers, favoring cooperative groups
  (Kamps, et al., 2002)
Effectiveness

Classroom based programs
TP taught to play & respond to children with ASD
Created a ‘buddy system’ => STAY, PLAY & TALK

RESULTS: TP > interactions with children with ASD; children with ASD > responsiveness & interactions with TPs; no generalization to play outside the classroom (Goldstein & Kaczmarek, 1992; Goldstein & Cisar, 1992; Goldstein et al., 1992, 1995; English et al., 1997)

Peer training & priming in classroom programs
RESULTS: > social interactions among peers, when TPs involved in peer training & priming (Zanolli et al., 1998)

Effectiveness

Peer training for greeting, imitating, sharing, turn taking & requesting

RESULTS: > frequency & duration of play for students with ASD (Gonzalez-Lopez & Kamps, 1997)

Effectiveness

Training of 8-9 year olds through didactic modeling, instruction & feedback

RESULTS: > engagement no change in initiations some generalization to untrained peers (Pierce & Schreibman, 1997)
Effectiveness

Peer training & written text cues

RESULTS:
>social communication of children with ASD & typical peers
(Thiemann & Goldstein, 2004)

Effectiveness

Use of motivational strategies during play dates

RESULTS:
>quality of interactions between children (8-9 yrs.) with ASD & typical peers
(Koegel et al., 2005)

Evidence

Circle of Friends used to improve communication between children with ASD & their peers

RESULTS: Children with ASD >response & initiation rates following intervention & at follow-up (Kalyva & Avramidis, 2005)

Peer play intervention used to support the behavior regulation, social interaction and joint attention between children with ASD & their peers

RESULTS: Children with ASD >their time engaged with their typical peers in play (Prendeville, Prelock & Unwin, 2006)
Additional evidence

- Peer to peer social skills instruction & peer training in elementary school led to increased initiations & responses in all participants (Banda et al., 2010)

- Meta-analysis of peer mediated interventions for young children with ASD suggested it’s a highly effective intervention (Zhang & Wheeler, 2011)

Learning Experiences...An Alternative Program (LEAP)

Typical peers taught to initiate play with children w/ ASD using:
- role-play
- adult cuing around play materials & activities
- reinforcement

Parents involved
- support their other children in interactions with the child w/ASD.

4 basic steps
- describe the skill
- rehearse with the interventionist
- trade places with interventionist
- practice with another child

Examples of social skills taught:
- sharing a toy
- asking for a toy
- suggesting to a friend what to do with a toy
- saying nice things about the friend or what the friend is doing

Tracking forms are used to collect data
Time engaged is documented
EXAMPLE

“Today we are going to learn how to get our friends to do fun things with us. It is important that friends learn to have fun with one another. One way to get a friend to have fun like talking or playing a game with us is by getting their attention.”

(GETTING A FRIEND’S ATTENTION)

The specific skill of ‘getting attention’ might be described in this way:

“One way to get our friends to have fun together is by getting their attention. To get a friend’s attention,

→ you look at your friend
→ you say your friend’s name
→ you gently tap your friend’s shoulder or arm if they are not looking at you. You keep trying until you get your friend’s attention.”

The interventionist might say the following:

“Let’s practice getting your friend Mark’s attention so that he looks at you. Watch me. I’m going to get Mark’s attention. Tell me if I am doing it right?

Did I get Mark’s attention?

You’re right, I did get Mark’s attention. I looked at Mark, said his name, and gently touched him on the arm.”
The skill is rehearsed with the interventionist.

For example, the interventionist might say:

“Now let’s have you practice getting a friend’s attention. Let’s pretend I am your friend and you are trying to get my attention. Remember to look at me, say my name, gently touch me on my arm if I’m not looking at you and keep trying until you get my attention.”

The Interventionist

• trades places with the child & tries to get the child’s attention.

• asks the child if she did it right.

Typical peer practices or rehearses the skill with another child. It could be another typical peer and ultimately the target child with ASD.

In this step, the interventionist explains that it is time to practice with a peer or friend and says something like:

“I am going to have David come over and practice with us. Christopher, you practice getting David’s attention. Remember, you are going to look at him, say his name, gently touch him on the arm or shoulder if he is not looking at you and keep trying until you get his attention.”
The interventionist

- Provides feedback as needed
- Offers praise for looking at their friend and getting their friend’s attention.

Implications for Peer Intervention

Teach peers to:

- Establish joint reference
- Comment on ongoing activities
- Acknowledge & respond to V & NV communication
- Know their role as responder & initiator
- Adopt a shared focus
- Observe subtle V & NV cues
Friendship Behaviors
- Sharing
- Suggesting play ideas
- Showing affection
- Assisting others
- Increasing length of encounters
- Establishing reciprocity

Adult Prompting
- Needed for children to use play strategies
- Must be provided to typical peers & children with ASD
- Initially intense but decreases with emerging skills in the children
- Supports entry into peer groups & initiation of social contacts
- Peer + Adult mediation ➔ BEST RESULTS

Review of Peer Mediated Social Interaction (Watkins et al., 2015)
- Research shows increased interactions for children, adolescents and young adults in inclusive settings
- Considerations when choosing your peer mediated strategies:
  - Individual characteristics
  - Type of social deficit
Promote Peer Interaction in Preschool (taken from Hollingsworth, 2005)

- Set up Environment
  - Pair with socially competent peer
  - Have playgroups of 2-4
  - Use toys that encourage interaction
  - Prepare materials around themes
  - Include motivating toys/activities

Promote Peer Interaction in Preschool (taken from Hollingsworth, 2005)

- Teach Play Scripts
  - Setting: grocery story
  - Characters: customer, baker, cashier
  - Script
    - Include words for each of the characters
    - Have a clear beginning, middle, and end
  - Modeling, instructions, practice & feedback

Promote Peer Interaction in Preschool (taken from Hollingsworth, 2005)

- Teach ways to share, give compliments & take turns
- Involve peers
  - Use incidental teaching
  - Have peers track their praise
  - Train several peers
  - Assign buddies during center time to STAY, PLAY & TALK
  - Change buddies regularly
Promote Peer Interaction in Preschool (taken from Hollingsworth, 2005)

- **Guidelines for implementation**
  - Observe to gather info on peer connections
  - Try one intervention at a time in more than one setting
  - Train paraprofessionals to implement the intervention & observe the children