Peer Mediated Intervention for Preschoolers with ASD
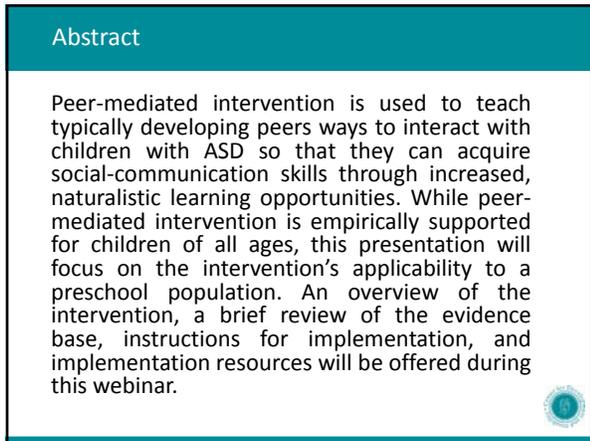
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A University Center for Excellence in Developmental Disability Education, Research and Service (UCEDD)

Abstract

Peer-mediated intervention is used to teach typically developing peers ways to interact with children with ASD so that they can acquire social-communication skills through increased, naturalistic learning opportunities. While peer-mediated intervention is empirically supported for children of all ages, this presentation will focus on the intervention's applicability to a preschool population. An overview of the intervention, a brief review of the evidence base, instructions for implementation, and implementation resources will be offered during this webinar.
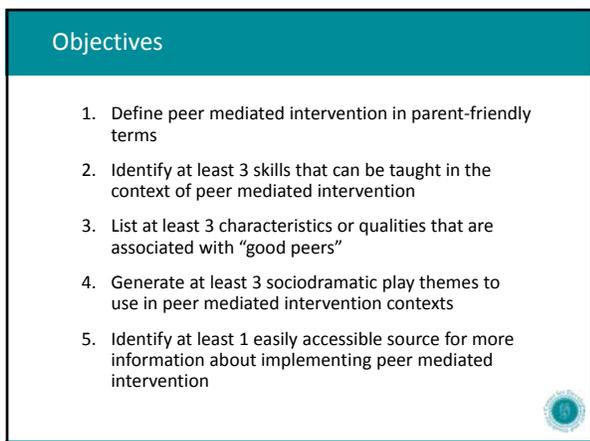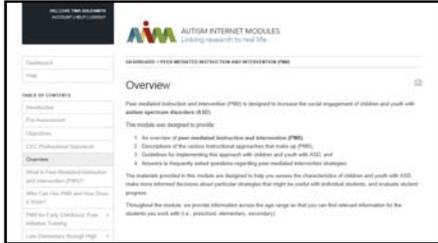
Objectives

1. Define peer mediated intervention in parent-friendly terms

2. Identify at least 3 skills that can be taught in the context of peer mediated intervention

3. List at least 3 characteristics or qualities that are associated with "good peers"

4. Generate at least 3 sociodramatic play themes to use in peer mediated intervention contexts

5. Identify at least 1 easily accessible source for more information about implementing peer mediated intervention

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Content source

Primary Source: www.autisminternetmodules.com

ASD: What are we trying to impact?

Autism Spectrum Disorder 299.00

Diagnostic Criteria

A. **Persistent deficits in social communication and social interaction** across multiple contexts, as manifested by the following, currently or by history (examples are illustrative, not exhaustive, see text):

1. Deficits in **social-emotional reciprocity**, ranging, for example, from abnormal social approach and failure of normal back-and-forth conversation; to reduced sharing of interests, emotions, or affect; to failure to initiate or respond to social interactions.

2. Deficits in **nonverbal communicative behaviors** used for social interaction, ranging, for example, from poorly integrated verbal and nonverbal communication; to abnormalities in eye contact and body language or deficits in understanding and use of gestures; to a total lack of facial expressions and nonverbal communication.

3. Deficits in **developing, maintaining, and understanding relationships,** ranging, for example, from difficulties adjusting behavior to suit various social contexts; to difficulties in sharing imaginative paly or in making friends; to absence of interest in peers.

ASD: What can get in the way?

Autism Spectrum Disorder 299.00

Diagnostic Criteria

B. **Restricted, repetitive patterns of behavior, interests, or activities**, as manifested by at least two of the following, currently or by history (examples are illustrative, not exhaustive; see text):

1. **Stereotyped or repetitive motor movements, use of objects, or speech** (e.g., simple motor stereotypies, lining up toys or flipping objects, echolalia, idiosyncratic phrases).

2. **Insistence on sameness, inflexible adherence to routines, or ritualized patterns or verbal nonverbal behavior** (e.g., extreme distress at small changes, difficulties with transitions, rigid thinking patterns, greeting rituals, need to take same route or eat food every day).

3. **Highly restricted, fixated interests that are abnormal in intensity or focus** (e.g, strong attachment to or preoccupation with unusual objects, excessively circumscribed or perseverative interest).

4. **Hyper- or hyporeactivity to sensory input or unusual interests in sensory aspects of the environment** (e.g., apparent indifference to pain/temperature, adverse response to specific sounds or textures, excessive smelling or touching of objects, visual fascination with lights or movement).

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Why use peers?

- Simply put:
  - We're trying to impact social deficits
  - You can't be social unless you're in a social context (i.e., with another person)
  - It makes sense to have our little people learn from the little people in their lives; peers are their naturally occurring social partners

  Generalization!

Why do we have to *make it* happen?

- Children with ASD have fewer opportunities to engage in social interactions
- This means fewer opportunities to practice and acquire social and play skills
- Counting on social exposure alone is insufficient
- We have to increase the opportunities and increase the structure

What is peer mediated intervention?

- Typically developing peers are carefully and systematically taught ways of engaging their children with ASD in positive and extended social interactions.
- Peers assume the "teaching" role that an adult would otherwise play (providing modeling, prompting, and reinforcement), but in a natural, developmentally appropriate way that's also considerate of the peer.
- Relies heavily on principals of behavior analysis and is commonly employed in ABA services.
- Involves:
  - Teaching peers ways they can talk and interact with children with ASD
  - Increasing frequency with which children with ASD interact with peers
  - Extending peers' social initiations with children with ASD across activities
  - Minimizing adults support, including prompts and praise
  - Promoting positive and natural interactions

  Our aim is that persistent social initiations from peers will increase social responding- perhaps even increase social initiations- and heighten their social engagement.

For whom is this appropriate?

- Empirically supported for preschoolers to highschoolers
- Can be implemented with pairs or small groups
- Most useful for children with ASD who have limited communication skills, who rarely initiate or respond to social interactions with peers, and who do not appear to be benefiting from traditional group instruction
- Can be used with children with ASD with varying levels of functioning, as long as they can safely engage with peers (*just remember to adjust social expectations*)
- Ideally though, you'd use peer mediated intervention when there's a decent chance that the child with ASD will respond, to some degree, to the overtures of the peer. In other words, we want the peer to work, but not work too hard without any reward.
- Specific strategies and expected outcomes vary depending on the age and functioning of the child with ASD, as well as the context in which peer mediated intervention is employed

Who can do it, and where can it be done?

- Can be used by a variety of professionals: preschool teachers, special educators, psychologists, behavior analysts, and other types of therapists.
- As with most interventions, having a good understanding of ASD, child development, behavioral principals, and the specific intervention will impact success.
- Can be used in school and community-based environments.
- Feasible to be delivered in-home and by trained parents, but there's limited data on doing so.

Peer Initiation Training

- For our little kiddos, we often use a specific form of peer mediated intervention called peer initiation training
- Involves directly teaching peers how to:
  - Appropriately initiate an interaction
  - Appropriately respond when their partner with ASD initiates
- Social play and interaction are promoted by making sure that the social interaction is characterized by:
  - Appropriate social orientation
  - Parallel/proximity play
  - Common focus

Selecting peers

The first step in implementing peer initiation training is to select the peer(s).

Selected peers should:
- Exhibit good social skills, language, and age-appropriate play skills
- Be well-liked by other peers
- Have a positive social interaction history with the child with ASD
- Be generally compliant with adult directives
- Attend to an interesting task or activity for at least several minutes at a stretch
- Be willing to participate
- Attend school/daycare/etc. on a regular basis

Girls, girls, girls!

What do the peers get out of this?

- Changes their view of individuals with disabilities and developmental differences; become more accepting and inclusive
- Enhances their social development
- Minimizes inappropriate/disruptive behavior
- Allows them to access reinforcement; they are often viewed as more socially skillful by their teachers, parents, etc.

Training and supporting peers

- Once peers have been identified, they have to be taught what do to.
- Training typically takes place in a distraction-free environment where materials are organized and readily accessible.
- Training involves talking to peers in language that is appropriate to their developmental level, and only giving them as much information as needed.
- Starts by helping peers formulate an appreciation for the fact that we are all alike in some ways, and different in other way.
- Peers are provided with an explanation of how we learn from each other.
- Peers are exposed to the similarities and differences of children with ASD, with or without using the word "Autism."
  - This discussion will vary widely in content based upon the ages of the peers.
  - The discussion should be very concrete
  - The discussion should focus on observable behaviors: "Kyle needs help learning how to play with other kids, so we are going to teach him how."

See Autism Internet Modules website for sample scripts and activities, as well as video examples

Training and supporting peers (continued)

- Training progresses by introducing specific strategies, one at a time
  - Describe the skill
  - Demonstrate the right way and then the wrong way
- Peers typically practice with an adult (with feedback), and then with another typically developing peer (with feedback)
- Length of time varies, but can require four or five (somewhat brief) sessions to reliably learn the initiation strategies
- Peers learn specific behaviors that are used to facilitate play and social interaction:
  - Organizing play (making suggestions for play activity, role, or other play for peers)
  - Sharing (offering, giving, or accepting a play material to/from focal child)
  - Providing assistance (helping child to complete a task, get on play equipment, or respond to requests for assistance)
  - Providing affection and praise through hugging, putting arms around, patting, holding hands, shaking hands

Consider setting up a reinforcement system for peers!

Training and supporting peers (continued)

LEAP's Social Skills Curriculum:

- Belief that specific behaviors (being a play organizer, sharing, assisting, and giving affection) contribute to friendship formation.
- But you also have to have interactions that are lengthy and involve back-and-forth (i.e., reciprocity).
- Specific behaviors that often have a big payoff in friendship formation: greetings, smiling, and "hot" sayings
- LEAP teaches peers how to:
  - Get your friend's attention
  - Share (giving toys)
  - Share (requesting toys)
  - Be the play organizer ("You be mommy")
  - Give a compliment ("I like your painting")

Positive Early Learning Experiences Center at the University of Colorado Denver, Directed by Phillip Strain: http://www.pelecenter.org/leap.php

Introducing the child with ASD

- Once successful, peers start playing with kids with ASD.
- Teacher introduces the play activity, provides prompts to the peer, and reinforces behavior as necessary.
- At the conclusion of the activity (~5-10 min), children can then go on to another setting or remain in the activity if they wish.
- Once peers have become proficient, teachers implement daily activities with reduced prompting and reinforcement.

In LEAP preschools, play stations are often set up and children with ASD rotate one way, and peers rotate the other way, allowing for maximum exposure to people and materials. *Programming for generalization!*

When and where, and with what result?

- Allow at least 15 min. for each play session, *including* the transition to and from the activity.
- Play activities should not take place during preferred activities because peers might have reduced motivation to interact with the child with ASD during such activities.
- Having a consistent time and place will help children with ASD transition more smoothly and anticipate what is expected of them.

As children become more proficient and as interactions become more naturalistic, strategies can take place in all routines and activities, both planned and spontaneous.

Carefully select your materials/activites

- Consider limiting play materials to items that:
  - Contain a specific theme for each play session
  - Include an element of sociodramatic play (e.g, role playing, acting out scripts)
  - May require assistance in operating
  - Are not normally available in the classroom
- Some activities encourage sharing, exchanging of materials, and other social behaviors more so than others, so plan ahead!

Sand table	Grocery store
Birthday party	Chinese take-out
Doll house and people	Barbershop/salon
Building a road	Puppet show
Auto shop	Zoo
Doctor's office	Baby bathtime
Farm	Cooking in the kitchen

Who's doing what?

Don't forget to put someone in charge!

- One adult should be consistently responsible for running and supervising play sessions.
- This adult will:
  - train peers
  - implement the learning activities
  - observe child progress

Don't forget the essential elements…

Prompting and Reinforcement

- When there has been no interaction between the focal child and peers for 30 seconds, prompt!
- Prompting often involves cueing the peers to use the strategies through:
  - Explicit instructions ("Try talking about Taylor's animals")
  - Subtle verbal instructions ("It's your turn to talk" or "Try again"
  - Picture cues (e.g., a drawing of two children talking)
  - Gestures such as signaling the peer to move closer
- If the child does not respond to the prompt within 10 seconds, repeat the prompt again and provide physical guidance.
- As peers become more proficient at engaging children with ASD, prompts should be faded and reinforcement should be thinned.

To make it work, you have to…

- Individualize instruction to meet the needs of each child.
- Plan for the intervention by:
  - assessing the child with ASD's existing skills,
  - identifying the skills that need to be taught, and
  - determining how the skills will be taught.
- Implement the intervention with fidelity.
- Monitoring the child's progress.

How do you know when it's working, and when it's not?

It's working when you see:
- Peers initiating interactions with the child with ASD
- Kids with ASD responding to the peer's initiations
- Kids with ASD initiating with the peer
- An absence of maladaptive behavior

It's not and needs modification when you see:
- Children with ASD pushing toys toward their peers, but no peer response
- Kids with ASD asking for help, but getting no response
- Peers asking questions, but not giving the child with ASD time to respond
- Children with ASD responding nonverbally, with the peer failing to realize it
- Peers continually tells the child with ASD what to do

Sample child and activity observation forms are included in the Resources section of the peer mediated intervention Autism Internet Module.

Helpful links

Autism Internet Modules, See Peer Mediated Intervention and Instruction Module:

- http://www.autisminternetmodules.org/

The National Professional Development Center on Autism Spectrum Disorders (NPDC): PMI Learning Module:

- http://autismpdc.fpg.unc.edu/content/peer-–mediated-instruction-and-intervention

Peer Mediated Support Strategies, 6-page informational document:

- http://vkc.mc.vanderbilt.edu/ci3t/wp-content/uploads/2013/05/Peer-MediatedStrategies.pdf

Association for Science in Autism Treatment's brief treatment overview:

- http://www.asatonline.org/treatment/procedures/peer

Philip Strain's Positive Early Learning Experiences (PELE) Center's site, for more information about the LEAP preschool model:

- http://www.pelecenter.org/leap.php

Empirical support

Carr, E. J. & Darcy, M. (1990). Setting generality of peer modeling in children with autism. *Journal of Autism and Developmental Disorders, 20*(1), 45-59.

Carter, E. W., Cushing, L. S., Clark, N. M., & Kennedy, C. H. (2005). Effects of peer support interventions on students' access to the general curriculum and social interactions. *Research and Practice for Persons with Severe Disabilities*, *30*(1), 15-25.

Kamps, D. M., Barbetta, P. M., Leonard, B. R., & Delquadri, J. (1994). Classwide peer tutoring: An integration strategy to improve reading skills and promote peer interactions among students with autism and general education peers. *Journal of Applied Behavior Analysis*, *27*(1), 49-61.

Kamps, D. M., Potucek, J., Lopez, A. G., Kravits, T., & Kemmerer, K. (1997). The use of peer networks across multiple settings to improve social interaction for students with autism. *Journal of Behavioral Education*, *7*(3), 335-357.

Empirical support

Kohler, F. W., Strain, P. S., Maretsky, S., & DeCesare, L. (1990). Promoting positive and supportive interactions between preschoolers: An analysis of group-oriented contingencies. *Journal of Early Intervention*, *14*(4), 327-341.

Odom, S. L. (1991). Reducing teacher prompts in peer-mediated interventions for young children with autism. *The Journal of Special Education*, *25*(1), 26-43.

Sperry, L., Neitzel, J., & Engelhardt-Wells, K. (2010). Peer-mediated instruction and intervention strategies for students with autism spectrum disorders. *Preventing School Failure, 54*, 256-264.

Trembath, D., Balandin, S., Togher, L., & Stancliffe, R. J. (2009). Peer-mediated teaching and augmentative and alternative communication for preschool-aged children with autism. *Journal of Intellectual and Developmental Disability*, *34*(2), 173-186.

Contact the CDD's library for assistance in accessing any of these articles!

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Revisiting our objectives

1. Define peer mediated intervention in parent-friendly terms (Hint: see slide 9)

2. Identify at least 3 skills that can be taught in the context of peer mediated intervention (Hint: see slide 17)

3. List at least 3 characteristics or qualities that are associated with "good peers" (Hint: see slide 13)

4. Generate at least 3 sociodramatic play themes to use in peer mediated intervention contexts (Hint: see slide 20!)

5. Identify at least 1 easily accessible source for more information about implementing peer mediated intervention (Hint, hint: see slide 25!)

Information and Referral Specialists at the Autism Programs

A state-wide information line for families, individuals with ASD, and providers seeking autism specific resources

• To contact the Information and Referral Specialists , call (505)272-1852, Toll free (800) 270-1861

Thanks for your interest and participation!

Feel free to email with questions/comments:
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