

Maximizing Effective Communication to Support Inclusion: Social Communication Strategies for Individuals with Autism and Related Developmental Disabilities

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Health and Wellbeing 2018 – November 8, 2018

Learning Objectives

- Review evidence based, practical social communication strategies for youth with autism spectrum disorder and related developmental disabilities
- Identify alternative communication approaches
- Explore strategies to improve communication that result in more inclusive environments

Social Communication

- Social communication involves:
 - language processing (vocabulary and syntax);
 - pragmatics (conversational management, for example);
and
 - social and emotional learning
- An interaction of social reciprocity and communication – the skills needed for each overlap and are somewhat circular – social reciprocity needs communication and communication occurs within social reciprocity

(Brinton and Fujiki, 2018)

Social Communication

Communication skills (speech, language, pragmatics)

Pragmatics:

- The ability to use language for different purposes
- The ability to adapt communication to meet the needs of the listener or the context
- The ability to follow the unspoken rules of conversation or story-telling

Skills required

- Joint attention
- Non-verbal behaviours
- Verbal behaviours
- Turn-taking
- Initiation
- Affect and emotion recognition
- Self-regulation
- Language skills
- Theory of Mind

Why is it so important?

- Silly question really
- Let's go back to Vygotsky – Socialize and Learn
- Socialization affects the learning process
- When we talk with others – we talk to request and respond, but we also talk for the sake of communicating
- Social interactions help us to internalize what we have said

Why is it so important to target?

- If communication is focused on simply requesting and responding and play is mostly object-oriented, unimaginative and solitary, then.....
- the child will not have the opportunities to develop the skills needed for social communication, putting them at a lifetime risk for social deficits.

What is at risk?

- Problems making friends and maintaining friends
- Potential victim for bullying
- Being perceived as rude (e.g., not engaging with co-workers)
- Engaging inappropriately with unfamiliar individuals (retail clerk; bank teller; coach; etc.)

What is at risk?

- Prevents the occurrence of meaningful social interactions that are the foundation for social, cognitive, and language development (Carmargo et al., 2017)
- Adults living are at risk of poor social and health outcomes across the lifespan.
 - autonomy in daily life is limited;
 - occupational outcomes are low; and
 - relationships are restricted. (Siew et al., 2017)
- A circle - limited and negative social interactions can lead to even more challenges in social communication. (Sreckovic et al., 2017)

What is at risk?

- The social and academic difficulties of individuals with social communication deficits often persist into adulthood
- Most will experience lifelong difficulties such as depression, adjudication, incarceration, suicidal tendencies, and/or substance abuse

(Clinton, 2016)

What can be done?

- Got our work cut out for us
- It's extremely difficult to "teach" social rules when they vary from context to context and minute to minute.
- Our best chance at helping involves targeting intervention goals that facilitate communication in authentic contexts. (Brinton and Fujiki, 2018).

A word about Inclusion

- Just can't throw the word around – Inclusion is a complex issue
- Not having social interaction skills to develop meaningful relationships with typically developing peers is itself a significant barrier to inclusion
(Carmargo et al., 2017)

Inclusion

- Typically developing children are able to socially and academically benefit by observing, but individuals with social communication deficits may be unable to attend to and learn by observing others
- Simply providing opportunities for socialization does not ensure improved social interaction skills
- Social interactions do not naturally occur as a consequence of physical proximity

(Carmargo et al., 2017)

Inclusion

- Inclusion must be supported by addressing the social deficits to ensure positive outcomes (Carmargo, 2017)
- Remember - it is not always a problem that the “individual” must solve
- We cannot solely focus on treating only the person
- There are many evidence based strategies that involve both the individual and the communicative partner
- Some strategies involve all of us – e.g., washing hands picture schedules in bathrooms.

Evidence-Based Strategies

- Speech-Language Pathology
- Environmental arrangement
- Picture Exchange Communication System
- Video-modeling
- Use of high-tech AAC
- Social Scripts/ Comic Strip Conversations/
Social Stories™
- The Hidden Curriculum
- PEERS®
- Peer Mediated Interventions

Evidence-Based Strategies

- Most utilize techniques and behavioral principles of applied behavior analysis (ABA) such as modeling, prompts, and reinforcement (Carmargo et al., 2017)
- Applied Behaviour Analysis (ABA) is a science that involves systematically applying the principles of learning strategies in order to bring about meaningful and positive change in social behaviours

Speech-Language Pathology

- This is their wheelhouse!
- Can help to lead the team to choose the type of treatment that will work best for the child or individual and they will know how and when to adjust it to promote best outcomes

Speech-Language Pathology

- **Pragmatic language-focused interventions:**

- Examples include:

- **The Conversation Club**

- (weekly 15-120 minute sessions over lunch over school year – 14 lessons repeated 2-4 weeks)

- **Social Communication Intervention Program (SCIP)**

- Manualized program

- Phase 1 - activities to identify and repair errors in behavior and language, strategies to signal non-comprehension, and listener-speaker role-play

- Phase 2 - goals and activities for social understanding and social interpretation, pragmatics, and language processing.)

- Phase 3 - activities for generalization.

- (Timler, 2018)

Speech-Language Pathology

Social Skills Interventions

- Incorporate understanding use of appropriate and inappropriate behaviors followed by role-play practice with visual supports and verbal prompts to support executive functions skills
- Emphasis is placed on perspective-taking prompts to elicit student comments about why each step is important.
- Example – PEERS®
(Timler, 2018)

Speech-Language Pathology

Peer Support Strategies –

Environmental arrangements and whole-class or small group instruction by the classroom teacher and may include elements of peer-mediated instruction.

- Team building and collaborative learning assignments; Socially focused peer networks; etc.

(Timler, 2018)

Environmental Arrangement

- An environment that has few reinforcing items, motivating activities, or meets all of the individual's needs is *NOT* a functional environment for social interaction
- Environmental arrangement is relatively simple and can:
 - Promote learning
 - Promote communication
 - Increase motivation
 - Reduce distractions



Environmental Arrangement

- Language and Learning is encouraged when:
 - ✓ Materials and activities are of interest
 - ✓ The arrangement of the setting encourages interactions
 - ✓ Activities are scheduled to enhance participation and appropriate behaviour

Environmental Arrangement

- **Be careful not to over stimulate!**
- Provide an environment with limited visual distracters
- Avoid a lot of things hanging from the ceiling
- Make sure visuals are not overcrowded
- Look around for sensory distracters such as a ticking clock, fluorescent lights, a humming heater etc.
- Focus on the individual's personal profile

Picture Exchange System (PECS)

(Bondy and Frost, 1994)

- Not just about requesting and responding
- Recent research has demonstrated that PECS can also lead to:
 - improved social interactions including initiation of play and decreases in tantrum behaviours and non-compliance (Flores et al., 2012)
 - Improvements on VABS SC and social-communicative measures coded during free-play, i.e. frequency of joint attention and initiation, and duration of cooperative play. Plus stable after 1-year follow-up (Lerna et al., 2014)

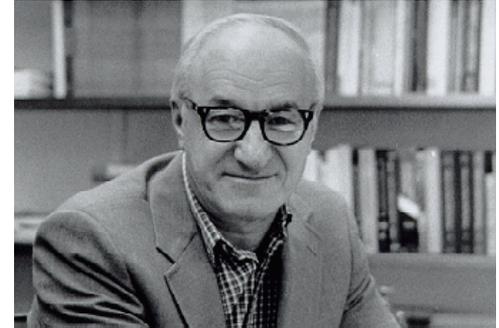
PECS with Peers

- Canella-Malone et al (2010) conducted a study to use PECS with peers
- 2 children with ASD: 14 year old (peer 11 yr old boy) and 6 year old (peer 3 yr old sister)
 - Taught to use PECS to interact with peers specifically- e.g., taught greeting
 - RESULTS: Modest results and only two subjects – but.... This study demonstrated that individuals with developmental disabilities can be taught to use PECS to communicate with their peers.



Video Modeling

Observational Learning



- First identified by Albert Bandura and has become known as 'Social Learning Theory'
 - A behavior is modeled or performed for an observer, who gains information from that behavior and can then use the information to modify his or her own behavior
- (Clinton, 2016)

Video-modeling (Clinton, 2016)

- **Video modeling other (VMO)** interventions provide instruction to a learner by using footage of an adult or peer (i.e., not the learner his/herself) engaging in a target behavior in order to increase future occurrences of that target behavior.
- **Video self-modeling (VSM)** interventions use footage of the learner his/herself engaging in a target behavior in order to promote future occurrences of that target behavior.
- Both variations of VM have been found to be successful

Clinton (2016) evaluated 19 studies VMO = 3 (10-17 years old) VSM = 16 (5-18 years old)

- **RESULTS:** More than half of the studies yielded a strong to moderate treatment effect when using VM interventions for children and adolescents with persistent aberrant behavior

Video Modeling



<https://www.bing.com/videos/search?q=video+modeling+autism&view=detail&mid=7C2945AFD7EB51278A0B7C2945AFD7EB51278A0B&FORM=VIRE>

(Greeting Others)



Video Modeling

- <http://ideasaboutautism.com/video.html>
- <http://www.special-kids.com/VIDEOLEARNING.cfm>
- <http://www.modelmekids.com/>

Use of High Tech – Augmentative and Alternative Communication (AAC)

Logan et al., (2016) examined through a systematic review the outcomes when using AAC beyond requests and needs – focused on social communication functions.

- FOUND: 30 articles that met inclusion criteria that demonstrated emerging evidence that AAC interventions can be used to teach a variety of communication functions to children with ASD

Use of High Tech – Augmentative and Alternative Communication (AAC)

- Ganz et al. (2017) – meta-analysis of single-case experimental research
- Implementation of high-tech AAC was effective and likely to be effective under most conditions and for most participants with intellectual and developmental disabilities to improve communication skills
- Implementation of high-tech AAC instruction within natural contexts is as effective as didactic instruction
- No age effects – therefore, high tech AAC good throughout all school years
- Communication of wants and needs was found to be significantly more improved compared to social closeness

Use of High Tech – Augmentative and Alternative Communication (AAC)

- Morin et al (2018) evaluated the quality of single-case experimental design research on the use of high-tech AAC to teach social-communication skills
- RESULTS: Using high-tech AAC to teach social-communication skills can be considered an evidence-based practice (although the review of comparison (i.e., alternating treatment) design studies did not indicate that high-tech AAC is significantly better than low-tech AAC).

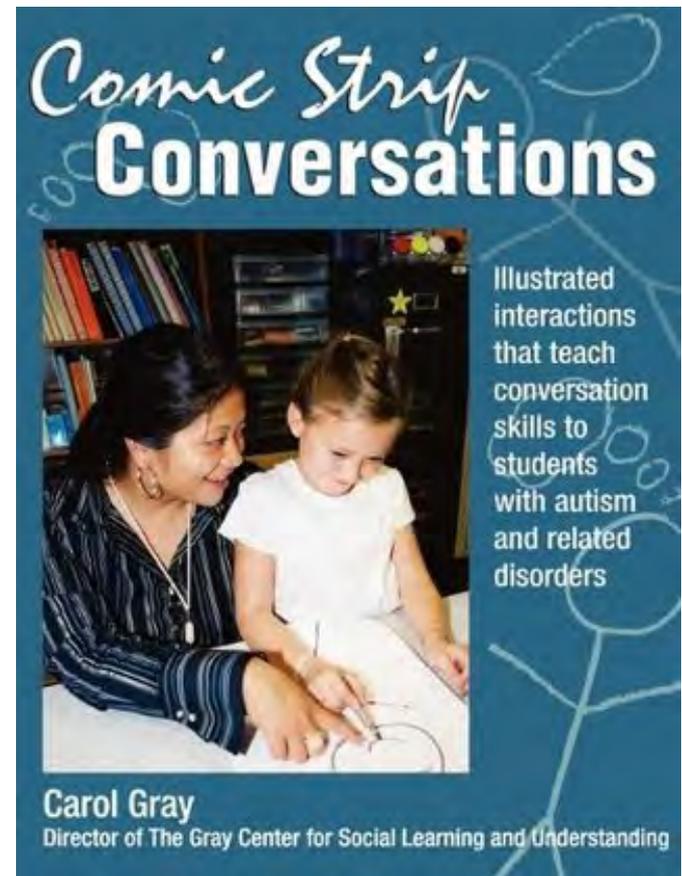
Social Scripts/ Comic Strip Conversations/ Social Stories™

- Ganz et al (2008) **Social Scripts**
- STUDY: Use of scripts and visual cues combined to examine the impact on communicative speech
- RESULTS: Improved social communication and decreased perseverative speech
 - The use of visuals is less invasive and less socially stigmatizing than verbal prompts or reminders.
 - They are also less distracting for other students who may be in the same classrooms as the individuals who are using prompts and cues.

Comic Strip Conversations

- Comic Strip Conversations promote social understanding
- incorporate simple figures and other symbols in a comic strip format
- Emphasize skills students need in order to behave in a more socially appropriate manner

Gray (1994)



Social Stories™ and Comic Strip Conversations

- Hutchins and Prelock (2012)
- Found that Social Stories™ and Comic Strip Conversations lead to socially valid outcomes with a minimum verbal age of 3 years

Social Stories™

- Short stories designed to inform, advise, and reflect on social interactions using situations from a person's actual experience to visually present social information
- Consider the perspective of the person for whom the story is written
- Focus on what an individual may see, hear, and feel in the targeted situation

Hutchins and Prelock (2012)

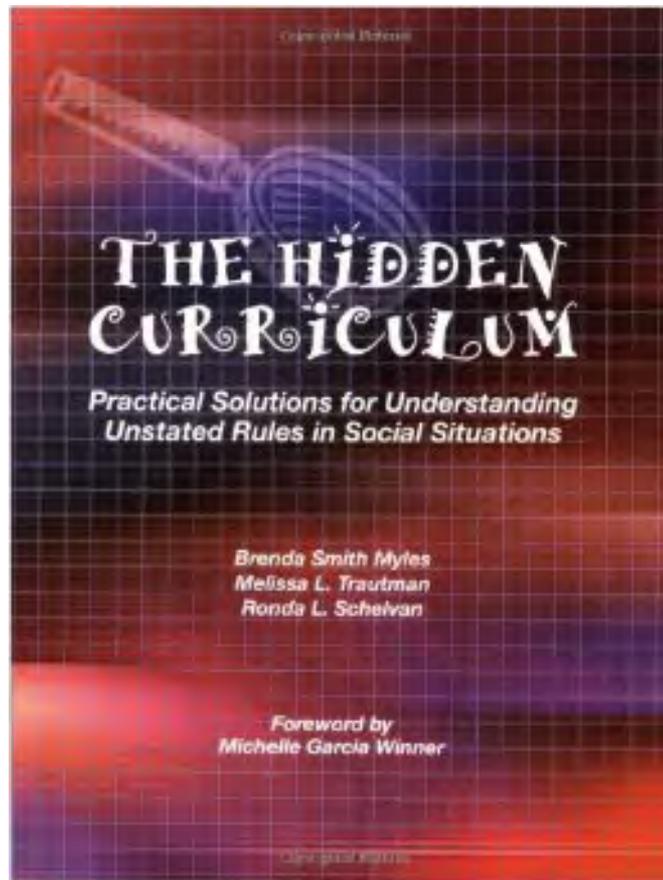
Social Stories™

- Short stories written for people with developmental disabilities to accurately describe social situations
- Give the person the “why” of social situations
- Identify effective responses to a given situation
- E.g., “Why do I raise my hand in class?”, “Why can’t I tell Sharon her haircut is ugly?”

Social Stories™

- Qi et al. (2018) Systematic Review
- 22 single-case research design (SCRD) studies on social stories intervention effects on social and communication skills, challenging behaviors, and functional skills for individuals with ASD
- RESULTS:
 - Studies that used a Multiple Baseline Design found that SS were deemed to be ineffective or questionable.
 - Studies that used an ABAB design or multiple probe found that SS were deemed to be fairly or highly effective
 - Overall, SS interventions were deemed effective for individuals with ASD according to non-overlap indices as they met the 5-3-20 rule set by WWC, but were not deemed to be effective using visual analysis.
 - Specifically - social stories were only effective in reducing inappropriate behavior. There are mixed findings on the effectiveness of social stories on social communication skills or increasing appropriate skills and behavior
 - Suggested that SS may be more effective for some participants than others – but more research is needed.

The Hidden Curriculum



The Hidden Curriculum

- Term to used to describe the unwritten social rules and expectations of behavior that we all seem to know, but were never taught
- For example, children just seem to know ... that you don't tell your teacher you think her shirt is ugly– even if it is!

The Hidden Curriculum



The Hidden Curriculum

- Lack of these skills results in barriers to social acceptability
- Safety can be compromised when students don't understand
- Can be a contributor to stress levels, which can affect attention & learning
- Self-esteem & independence can be greatly reduced, given the number of opportunities for error

PEERS©

- <https://www.semel.ucla.edu/peers>
- Program for the Education and Enrichment of Relational Skills (PEERS®)
- Originally developed at UCLA by Dr. Elizabeth Laugeson, Founder and Director of the UCLA PEERS® Clinic, and Dr. Fred Frankel in 2005
- Utilizes didactic, role plays, behavioral rehearsals, and homework assignments to provide the adolescents and young adults with several opportunities to engage in the social skills

PEERS©

- The most recent study (McVey et al. (2017) examined impact of PEERS on males versus females
- RESULT: *PEERS®* and *PEERS® for Young Adults* interventions are as efficacious for females with ASD as males.

Peer-Mediated Interventions

- Involve teaching peers to use a number of strategies that facilitate interaction with individuals with autism or other developmental disabilities (Goldstein et al., 2007)
- **General Concept:** a series of phases:
 - Peers are introduced to the idea of playing or interacting with their friends and are told strategies to use, with strategies often introduced one at a time.
 - Children rehearse by saying what they are expected to do.
 - They practice using the strategies with an adult whose responses become increasingly like a child with a disability.

Peer-Mediated Intervention

- Goldstein et al (2007) reported on studies where peers were taught to simply attend to, comment on, and acknowledge the behavior of their classmate
- “STAY-PLAY-TALK” strategy (i.e., *stay* with your friend, *play* with your friend, and *talk* with your friend) across three activities in the day
- Found - KEEP IT SIMPLE: Developing a fairly simple set of facilitative strategies that required little effort for peers to learn and to use and then spreading their use across the day resulted in a more viable and flexible intervention

Peer Mentoring in Post-Secondary Setting (Siew et al., 2017)

- Evaluated the pilot year of the Curtin Specialist Mentoring Program (CSMP)
 - a specialized peer mentoring program for university students with ASD
 - 10 participants between the ages of 17-20 – attending Curtin University in Perth
- Mentees are paired with one specialist mentor
- CSMP mentee-mentor pairs meet weekly for an hour to discuss issues pertinent to the mentee (e.g. managing stress, approaching support staff for help)
- Also encouraged to participate in a weekly Curtin Social Group

Peer Mentoring in Post-Secondary Setting (Siew et al., 2017)

- Students enrolled in the CSMP showed significant improvement in social support and general communication
- York Asperger Mentorship Program - <http://accessibility.students.yorku.ca/pilot-project-strengthening-transitions-for-students-with-autism-spectrum-disorders>

Peer Network Intervention for high-school students with ASD

(Sreckovik et al. (2017))

- Peer network meetings held about 2x a week during lunch in a classroom over 4 weeks with a facilitator present.
- Snacks and games provided.
- All kids present and facilitator only guided for the first 5-10 minutes.
- Results: Peer Network Intervention was effective in increasing total social interaction between students with ASD and their peers. Results also noted in generalization setting
 - Increased initiations and responses to peers
 - Increased social interactions for all 3 participants
 - Preliminary/exploratory results found that it reduced victimization and bullying

Peer mediated Instruction and Intervention (PMII) – Review

Zagona & Mastergeorge (2018)

- Results of this systematic review indicate the importance of implementing PMII - peers are taught the skills needed to successfully interact with the learners with social communication deficits
- Training typically developing peers results in the opportunity for learners to engage socially with their peers across a variety of activities and contexts, which is particularly important in *inclusive* classroom settings

Peer mediated Instruction and Intervention (PMII) – Review

Zagona & Mastergeorge (2018)

- Back to INCLUSION: it is important for practitioners to recognize the value and importance of inclusive contexts given that the presence of typically developing peers provides access and opportunities for implementing PMII as an intervention
- Within inclusive settings, there are repeated and contextually appropriate opportunities for the intervention to occur.
- Demonstrates the need for training for teachers and other professionals
 - professional development that includes classroom coaching and mentoring is warranted so that all educators are trained in methods for *facilitating* peer supports in natural contexts.

RESOURCES



AUTISM INTERNET MODULES
Linking research to real life.

Dashboard

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What is Peer-Mediated Instruction
and Intervention (PMII)?

Who Can Use PMII and How Does
it Work?

PMII for Early Childhood: Peer
Initiation Training +

Late Elementary through High
School: Peer Social Networking +

Summary

Evidence Base for PMII

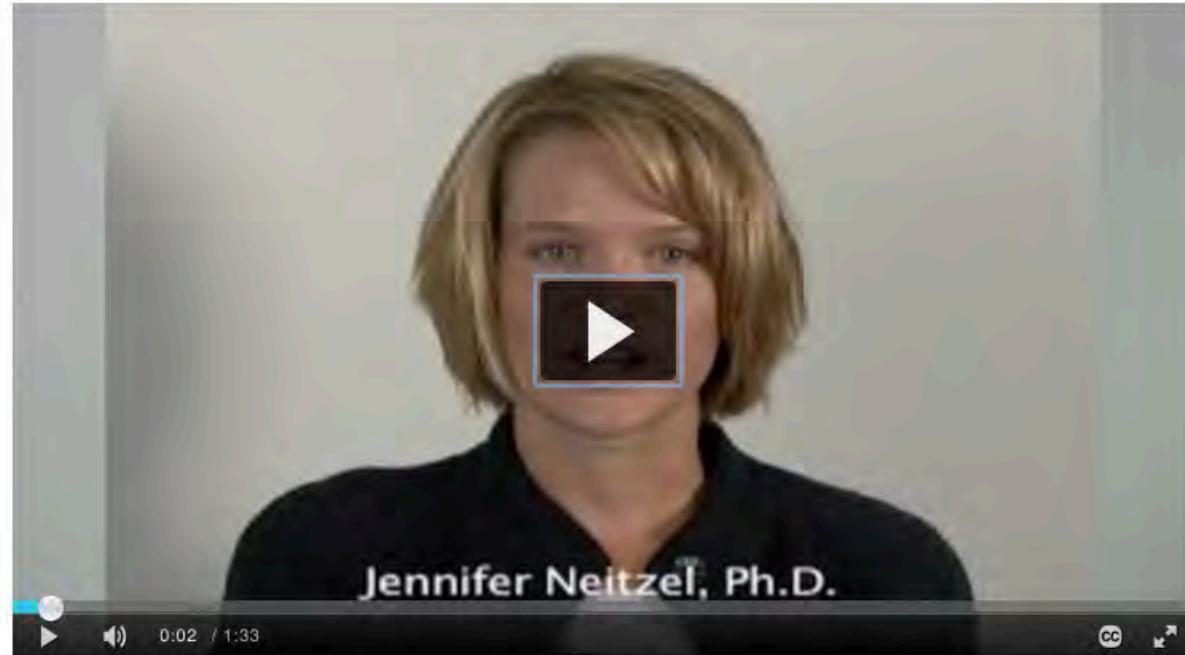
Frequently Asked Questions (FAQ)

Citation and References

Post-Assessment

DASHBOARD > PEER-MEDIATED INSTRUCTION AND INTERVENTION (PMII)

Introduction



Video: Peer Mediated Instruction and Intervention - Introduction

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DASHBOARD > VIDEO MODELING

Introduction

Paul LaCava, PhD
Assistant Professor
Rhode Island College

Video: Video Modeling - Introduction
[Interactive Transcript](#) | [Help](#)

Thank you!!

Time for Questions



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