PSYCHOLOGICAL INTERVENTION: HOW CAN SCHOOL-BASED INTERVENTION HELP?

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Why the School?

• The Bronfenbrenner's Ecological Systems Theory describes children's development as occurring within linking systems.
• School plays an essential role in a child's life and development, placing it within the Microsystem.
• School provides an opportunity where learning, practice, and generalization of skills take place.
How Can the School Help with children with ASD? 
School Based Inclusion Model

Model combination of
- The Autism Spectrum Inclusion Collaboration Model (Myles, Simpsons & deBores, 2008)
- ASD Nest Program Three-Tier Model (Bleweiss, Hough & Cohen, 2013)
- Conjoint Behavioral Consultation Model (Sheridan & Kratochwill, 2007)

Model Credit to: JC A-Connect: Jockey Club Autism Support Network”. By SAHK, ASD A-Plus, ASD School-Based Support Project
Three-tier Model of Supports for the ASD Nest Program

**Tier III**
Tier III supports require significant, intensive individual interventions, and ongoing consultation with ASD Nest consultants.

**Tier II**
In order to move to Tier II, it must be determined at a team meeting that all appropriate Tier I strategies were tried and found to be insufficient to address student needs.

**Tier I**
Tier I strategies are core features of all Nest classrooms and are appropriate for all age groups.

**Figure 1.1. Three-tier model of supports for the ASD Nest program.**
Social Skill Training (SST) is like Ballroom Dancing
Four Steps in Social Skills Trainings (SST) in Schools

- Promoting skills acquisition
  - Teaching appropriate social behavior through modeling, coaching, and instruction

- Enhancing skills performance
  - Rehearsal, reinforcement, and cooperative learning strategies

- Removing interfering behaviors
  - Interfering behavior may involve response-cost system and differential reinforcement

- Facilitating generalization
  - Promoted by using different training opportunities, and using community-based reinforcement
Common Forms of Social Skills Trainings

1) Behavior rehearsal
2) Visual Support
3) Video modelling
4) Peer-mediated intervention
5) Naturalistic technique
6) Group formats

Combined with reward and fade out system

Evidence-based approach, consolidated information from 2 meta-analysis studies.
Behavioral Rehearsal

• Effective approach teaching social skills which allow for positive practice of skills (Gresham, 2002)
• Child acting out situation or activities in a structured environment to practice newly acquired skills and strategies or previously learned skills that the child has difficulties performing
• Rehearsal allows the child to execute the skills or behavior without the pressure and anxiety sometimes associated with the real-life situation. Also allows practice of mechanic of a movement through repetition
• Repetition is a key aspect of rehearsal, as is ending with errorless (at least a positive) performance
Visual Support

- Commonly used for ASD student across age group (preschool to adolescents)
- Instructional support includes: visual schedules, social stories (Gary 2000), scripts and visual activities
- Effective in enhancing understanding and structuring social interaction for students with ASD. For example initiating interaction, making transitions, playing a game and speak with appropriate volume & intonation.
- Most effective to pair with behavioral rehearsal. Where visual support was used as an introduction to skills/concept, and with behavioral rehearsal, the child can practice the skills addressing the social behavior.
Video Modeling

• A form of an intervention aimed to tap into the visual learning style of ASD children. The child learns by watching own behavior.

• Intervention approaches using video tapes/clips instead of live scenarios to depict targeted behaviors

• Watching videotapes/clips enable the child to focus their attention on the behavior modeled in the tape/clip (McCoy & Hermansen, 2007)
Video Modeling

• **Basic Video Modeling** –
  • the learner, views a video of a peer performing the targeted task or desired behavior.

• **Video Self-Modeling** –
  • the learner, views a video of himself performing a skill that he has some ability to do but needs to master.

• **The point of View Video Modeling** –
  • the learner, views the skill or behavior from a video that captures what the learner will see through his own eyes.

• Highly effective way to teaching social skills (includes social-communication skills, behavioral functioning, and functional skills) through video modeling. (Reichow & Volkmar, 2010)

• Must used as a conjunctional intervention with another form of SST
Peer Mediated Intervention

- Natural context in peer medication intervention is important to achieve generalization.
- An approach where peers of the target students are trained to provide necessary tutoring in educational, behavioral, and/or social concerns. (Chan et al., 2009).
- It is suggested that daily exposure in peer play with trained peers has been found to increase several social behaviors with children with ASD.
  - Social behaviors include: proximity, appropriate eye contact (Paul, 2003).
- One of the high effective intervention for generalizing ASD children SST.
Naturalistic Technique

• Provide a structural parent-child / teacher-child interaction and seek to build scenario that would generalize to a child’s natural environment

• Instruction is based on teaching imitation and or/join attention behaviors, and have been found effective in younger children (Ingersoll, Dvotcsak, Whalen, & Sikora, 2005)

• Parent training is an effective method for increasing social skills of young children. However, more research is required to verify it is effectiveness with older children (Reichow & Volkmar, 2010)
Group Format

- Group intervention is common to use for high function ASD (Solomon, Goodlin-Jone, & Anders, 2004).
- Commonly using combined form of SST discussed above
- Group format provides opportunity for ASD children to interact with other children and apply skills learned in relatively realistic setting (Solomon et al., 2004; While et al., 2006)
- Research on the effectiveness of social skills groups is fairly limited (Reichow & Volkmar, 2010).
- It allows building friendship that could go beyond the extend of the group
- Intensive skills instruction is possible in a group composed for exclusively of children with ASD
- The inclusion of non-ASD children allows the opportunity to interactive in a more naturalistic way under the support of trainers. (Klin, & Volkmar, 2000)
- Research suggested that group format is more effective for older students (upper primary to secondary) (S. Bellini, Gardner, & Markoff, 2014)
Matching Strategies with Type of Skills Deficit

• Main concern with group format in SST
• The main element of social skills programming is having matching strategies with the type of skills deficit of each ASD child.
• Therefore, it is important to allocate children with similar skills deficit in the same training group
• One size does not fit all
Select Intervention Strategies

- Points to consider when selecting an intervention strategy:
  - Does the selected strategy have a functional relationship with the targeted skills
  - Does the strategy match the type of skill deficit
  - Does the selected strategy match the developmental level of child (i.e. language and cognitive functioning)
  - Is it evidence based approach?
To Prevent Mismatch of Intervention

• Building Social Relationship Model
  ① Assess on children’s social functioning (i.e., through use of Autism Social Skills Profile, (Bellini, 2007))
  ② Distinguished between skill acquisition and performance deficit
  ③ Selection intervention strategies
  ④ Implement intervention
  ⑤ Evaluate and monitor progress

• Skill acquisition deficit - absence of a particular skills or behavior
• Performance deficit – skills or behavior that is present but not demonstrated or performed
To Prevent Mismatch of Intervention

- **Skill acquisition deficit** -
  - Absence of a particular skills or behavior
  - Goal of intervention is to teach new skills or develop recently acquired skills

- **Performance deficit**
  - Skills or behavior that is present but not demonstrated or performed
  - Goal of intervention is to enhance performance of existing skills
<table>
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<tr>
<th>Promote Skill Acquisition</th>
<th>Enhance Social Performance</th>
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<tbody>
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<td>Teach non verbal recognition and perspective taking</td>
<td>Reinforce / contingency strategies</td>
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<tr>
<td>Reciprocal intervention strategies</td>
<td>Gaming skills / play skills</td>
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<td>Conversation game</td>
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<td>Behavioral rehearsal</td>
<td>Peer-mediated instruction</td>
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<tr>
<td>Social stories**</td>
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** may be used in both to promote skills acquisition and to enhance performance
Intervention Dosage

• Gresham et. al (2001), conducted a meta-analysis on school-based SST intervention. Despite there was no recommended dosage of intervention, but the team noted that 30 hours of instructional, social skills group which spread over 10-12 weeks is NOT ENOUGH. Such dosage produced low intervention effects.

• Reichow & Volkmar (2010), further suggested that a combination of instructional skills training session along with ongoing teaching and reinforcement moment throughout school day is the most effect approach in supporting ASD children.
Summary on Effective SST in School

a) Increase the dosage of social skill intervention
b) Provide instruction within the child’s natural setting
c) Match intervention strategies with type of skill deficit
d) Conduct reliable and valid social skills assessment (i.e. with baseline measures)
e) Develop clear and measurable treatment objective
f) Facilitate generalization of skills across settings and persons
g) Ensure intervention fidelity
h) Implement systematic social skills programming
School-Based SST and Beyond

- Social behavior is contextual. Individual receive intervention only in the artificial situation will face difficulties with generalization.

- Total improvement of social skills deficits does not occur, and difficulties with social skills persist even for those who receive good treatment.

- For interactive behavior to be maintained, training should occur in the environments where generalization is to occur (for example home, school, and playground).

- SST may most effect when integrated into natural settings.
Reference

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