

Issues and considerations in teaching social skills to individuals with autism

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State of intervention.....

- Social deficits remain the most resistant to intervention efforts
- Social skill difficulties include problems with responsiveness and initiations
- Deficits also include problems in the functional availability of social responses

ABA: A Definition

- “Applied Behavior Analysis is the science in which tactics derived from the principles of behavior are applied systematically to improve socially significant behavior and experimentation is used to identify the variables responsible for behavior change.”
- Cooper, Heron, & Heward, 2007

Critical elements of the definition

- Improve *socially significant* behavior
 - What does this mean?
- Identify variables responsible for behavior change
 - *Why is this challenging in the teaching of social skills? How can this be done?*

Why is it harder to teach these skills? Diagnostic criteria review

- 1. Impairment in social interaction
 - Multiple nonverbal behaviors
 - Peer relationships
 - Sharing enjoyment
 - Social/emotional reciprocity
- 2. Impairments in Communication
 - Conversation
 - Make-believe or social imitative play

Why else is it harder to teach these skills?

- Multi-element skills
- Involve social judgment as well as skill mastery
 - Judgment is made more difficult by the myriad possibilities that exist in natural interactions

Topics for discussion

- When are we targeting social skills?
- What are the qualitative aspects of social responding that are most clinically relevant?
- How do we build social “comprehension” or more elaborate social responses?
- Is ABA really well-suited to teach social skills?
- What about joint attention and TOM?

When does social skill training begin?

- What are early targets of instruction?
 - Manding
 - Imitation
 - Play skills

Examples of mands that occur in social contexts

- Pointing to a video game that another student is playing with
- Asking a friend for the glue stick
- Asking a friend to open your soda can
- Asking a friend to do something funny (e.g. make a silly noise) again

Questions on manding

- How can manding become a long-term curricular progression?
- How can we take data on manding?

Critical Issues in Social Skills

- Initiations
- Responsiveness
- Qualitative aspects of social behaviors

Social initiations and responses

- How are these taught?
 - Social validity of items taught
- What are the challenges in teaching these skills?
 - # learning opportunities vs. natural contexts
 - how should we determine mastery?

Qualitative aspects of social behaviors

- Clarity
- Appropriateness
- Independence
- Endurance
- Latency

How do we address these issues?

- Clarity and Appropriateness
 - Use shaping
 - Use differential reinforcement
- Independence
 - Guard against prompt dependency
 - Program for generalization

Addressing endurance

- Focus on duration as a dimension of response
 - Length of time in play/leisure contexts
 - # conversational exchanges

Addressing Issues of Latency

- Focus on latency as an aspect of responding
 - Measure it and work to reduce it
 - Include it as part of criteria for mastery
- Achieve Fluency through Rate Building
 - What is Fluency: “The fluid combination of accuracy plus speed that characterizes competent performance.” (Binder, 1996)

When does latency have social consequences?

- Social responsiveness
- Responding in a group environment

Long latencies to respond and slow response rates lead to missed opportunities for interaction and participation

Characteristics of Fluent Behavior

- Automatic
- Low response effort
- Flowing
- Functional
- Expert

Using rate-building to achieve fluent responding

- How is timed practice for social skills done?
- What aims do we use?
 - Are published aims appropriate?

A review of why we might choose to do rate-building

- Non-fluent responses may not be available when needed
- Non-fluent responses may be laborious and difficult, and may interfere with the social exchange

Issues in Non-fluency with Conversation

- Verbal behavior
 - Occurs at great speed
 - Is easily and rapidly emitted
- Speed deficits affect
 - Comprehension
 - Conversational output

Necessary rate: what aim to use?

- Performance Standard
- 150 to 250 words per minute (Conversation)
 - Commonly used list compiled by Rick Kubina: 150-200 per minute
 - Clay Starlin: 150 to 250 per minute
 - Speaking and listening rate
 - Verbal response must occur at same rate to remain effective in conversation

Performance standard

- 150 to 250 WPM may be a powerful performance standard

Questions Regarding the Performance Standard

- Is this rate applicable to all ages?
- Is this rate applicable to students with ASD's?

What other elements of social skill training are commonly discussed as clinical challenges?

- Following social rules
- Emitting complex social responses

Understanding social rules and what is expected

- What do people use to teach these skills?
 - Social Stories
 - Rule cards
 - Feedback on performance
 - Role plays
 - Video instruction

Social Stories

- Developed by Carol Gray
- Can be used with modifications such as pictures to assist with comprehension
- Can be used for multiple purposes
 - multi-element tasks
 - addressing fears
 - addressing challenging behaviors

Writing Social Stories

- Carol Gray Recommends:

A 1:2-5 ratio

- Descriptive
- Perspective
- Directive
- Control

Social stories: Data?

Small body of literature exists

Review study has been published (Reynhout & Carter, 2006)

- Not all studies reported cognitive level

- Effect sizes highly variable

- Methodology highly variable and often not following protocol

- No effect of more descriptive sentences

More on social stories

- Consequence statements may be very important
- Many aspects unclear in terms of impact
 - Frequency of review
 - Comprehension activities
 - Access to story
- Often, social stories are used as *one component* of an intervention package that includes more direct interventions
 - Prompting
 - Reinforcement

More on social stories

- Global evaluation
 - Data not robust that social stories facilitate behavior change
 - Maintenance and generalization are largely unaddressed
 - Critical issue for this population

Social stories: Appeal

- Clinical popularity
 - Ease of implementation
 - Touted as applicable to a wide range of behavior
- Clinical guidelines
 - If used, should be used in combination with direct behavior change procedures
 - HOW ARE WE EVALUATING IMPACT????

Rule cards

- Helpful in teaching students to follow social rules associated with a particular activity
- A rule card clearly states the behavioral expectations for a specific activity
- Can be textual or picture-based, or both
- Should be brief
 - enhances portability
- Can be used in combination with in vivo behavioral rehearsal

Rehearsing Appropriate Behavior

In combination with rule cards

Role Plays

Video Instruction

Role Plays

- Can be used to target nuances of interaction
- Format can be individualized to maximize success
- Can be done with characters, puppets, or people

Video Modeling

- Has also been shown to be effective in building a variety of skills
 - Play
 - Conversation
- Probably under-utilized given the empirical support
 - High response effort
 - Need to program variability

Which of these strategies have empirical support?

- Video modeling (e.g. Charlop & Milstein, 1989; Taylor et al, 1999)
 - Can include targets such as playing with others, conversation
 - Can be used to teach identification of appropriate behavior
 - Can be used to provide reinforcement and corrective feedback

What about some hot topics?

- Are social skills better addressed through a non-ABA approach, such as RDI?
 - Conceptual issues
 - Lack of operational definitions
 - Absence of evidence of effectiveness

More hot topics

- What about Joint attention? Perspective taking/TOM?
 - Critical question is not whether such skills can be taught, at least to some individuals on autism spectrum, but whether these skills generalize into the natural environment.

And let's revisit non-vocal communicators and social skill development

- What is the same?
- What is different?
- How do we train the listener community better?
 - Especially peers
 - Peer understanding of ASD's
 - Peer training approaches

Social skill training

- Probably an area in which we are least guided by theory or evidence, and most guided by ritual
- We need to think more clearly conceptually about what we are teaching and how we are teaching
- We need to design better studies with controls in place to effectively evaluate social interventions

Social skill training

- For individual students, we need to
 - focus on the demonstration of meaningful and socially significant change
 - Use data to guide decisions about instruction
 - Conduct component analyses of package interventions
- For consumers, we need to
 - Educate them about the evidence (and the lack of evidence) that exists for different interventions