Social Skills Training: A Summary of a Program Designed for a Child with Autism Spectrum Disorders (PDD-NOS)

Contributed by Scott C. Bellini

(BBB Autism; printable article #53)

Impairments in social interaction are a central feature in autism spectrum disorders. Difficulties initiating, maintaining, reciprocating, and terminating interactions can significantly impact an individual's social development. The following article summarizes a comprehensive social skills training program that was developed to address issues related to social interaction and anxiety for a child diagnosed with Pervasive Developmental Disorder—Not Otherwise Specified (PDD—NOS). The program was conducted as part of the author's advanced practicum assignment at the Institute for Child Study at Indiana University, Bloomington.

Introducing Charlie

I first met Charlie during an observation at his school in southern Indiana. Charlie was in the fourth grade and in many ways no different than most fourth grade boys. He had a keen interest in Godzilla and Star Wars, and could spend hours talking about these and other interests (which I discovered firsthand!). But, unlike most fourth graders, Charlie was living his life without the joy of a meaningful friendship. He had nobody his age with whom he could share interests, eat lunch, play with at recess, or even complain about homework. Charlie's mother and school staff described him as an exceptionally caring boy with enormous compassion for others. They were concerned primarily with the lack of social interaction, and his inability to form friendships. They also described him as being inattentive in class and extremely anxious. But ultimately, their main concern was for Charlie's future.

I observed as Charlie went about his school day. Throughout the day he apparently had no problems interacting with adults (which is often the case), but often avoided interactions with children his age. I once described this phenomenon to a teacher by telling her she was easy! After ducking her left cross, I explained that adults have a tendency to make interactions easy for children by doing all of the conversational work for them (e.g., asking questions, providing information). Charlie played with no other children that day. He did, however, watch intently as others played in groups and engaged in various activities. There was no doubt in my mind that the desire to participate was there, but like many other children with autism spectrum disorder, Charlie was lacking the essential skills to enter into and maintain a social relationship.

Social Skills and Anxiety

Over lunch, I began working on my programming recommendations. As I developed strategies for the areas to be addressed, one issue kept coming to the forefront, his difficulty with social skills. During the previous year I had begun developing a social skills training program that focused on building skills in individuals with autism spectrum disorder. I had developed a hypothesis that much of the anxiety experienced by individuals with autism spectrum disorder was the result of skill deficits in the area of social functioning. Through experience, I have come to realize that the widely held belief that most children with autism spectrum disorder prefer to be alone, does not hold true for many children (at least not initially). On the contrary, I have found that many kids do want to interact, they just lack the necessary skills to do so in an appropriate manner.

One young man I worked with illustrates this point quite well. Prior to my visit, the school staff informed me of his inappropriate behaviors and his apparent "lack of interest" in interacting with other children. After spending the morning in a self- contained classroom, Zach was given the opportunity to eat lunch with the general school population (a time and place that generally produced many of the problem behaviors). As he was eating lunch, a group of children to his

right began a discussion about frogs. As soon as the conversation began, he immediately took notice. So too did I. As he was listening, I noticed he began to remove his shoes, followed by his socks. I remember thinking, "Oh boy, here we go!" As soon as the second sock fell to the ground, Zach flopped his feet on the table, looked at the group of children and proclaimed, "Look, webbed feet!" The other kids (including myself) stared in amazement. In this case, Zach was demonstrating a desire to enter and be a part of a social situation, but he was obviously lacking the necessary skills to do so in an appropriate and effective manner.

This lack of know-how could lead to feelings of anxiety in some children. Many parents and teachers report that social situations typically evoke a great deal of stress from their children. I have heard individuals with autism spectrum disorder describe an anxiety that resembles what many of us feel when we are forced to speak in public (e.g., increased heart beat, sweaty palms, noticeable shaking). Not only is the speaking itself stressful, but also the thought of it. Imagine living a life where every social interaction you experience is as anxiety provoking as having to make a speech in front of a large group! The typical coping mechanism for most of us is to reduce the stress and anxiety by avoiding the stressful situation. For individuals with autism spectrum disorder, it often results in the avoidance of social situations. In some individuals, this could possibly lead to feelings of isolation and even depression. For others, it creates a pattern of absorption in solitary activities and hobbies. A pattern that is often difficult to change.

The Program

A Rationale and Overview of the Program

The goals and structure of the program centered on the areas deemed most important by Charlie's mother and school staff. The areas of concern included: lack of meaningful friendships, anxiety, inattention in class, and failure to complete homework. A comprehensive training program was then designed to address these areas as a whole. The program was based on the notion that the lack of meaningful friendships, anxiety, and inattention were related to his difficulties with social skills. That is, a lack of social skills leads to difficulties in interacting with others and in forming friendships, which then leads to anxiety. The anxiety then may influence behavior and begin to pervade other areas of the individual's life. In Charlie's case, the majority of his anxiety occurred in-group situations or in anticipation of group situations. My main hypothesis was that if we could help Charlie improve his social skills, the other difficulties would begin to diminish; most importantly the anxiety.

The collection of data is essential to any intervention program. Before beginning the program, behavioral checklists and measures of anxiety were administered to Charlie and his mother. The goal of the data collection was to obtain reliable and valid pre and post-measures of behavior. The Personality Inventory for Children (PIC) was administered to Charlie's mother to measure both internalizing and externalizing behaviors. There were no significant scores on the externalizing subtests (e.g., acting out, disruptive behaviors). However, the test revealed significantly elevated scores on the internalizing scales of anxiety and depression. A self-report measure of anxiety, the Revised Children's Manifest Anxiety Scale (RCMAS), also revealed Charlie was experiencing a significantly high level of anxiety. Based on these elevated scores, the reduction of anxiety and depression became a major priority of the program.

Skill Acquisition vs. Performance Deficits

Socials skills training programs typically focus on one of two areas: skill acquisition deficits and/or performance deficits (Gresham, 1995). A skill acquisition deficit refers to the absence of a particular skill or behavior. For example, a child with autism spectrum disorder may not know how to go about initiating a conversation with another person, therefore he/she will often fail to initiate interactions. A performance deficit refers to a skill or behavior that is present, but not used. To use the same example, a child may have the skill (or ability) to initiate a conversation, but for whatever reason, chooses not to do so. Much of the inappropriate behavior in schools is often conceptualized as the latter (performance deficits). Behavioral contracts and other reinforcement strategies designed to increase behaviors are examples of

techniques commonly used to address performance deficits. However, the present program focused on Charlie's skill acquisition deficits. Careful consideration was used to avoid the mistake of assuming a performance deficit.

When I discuss skill acquisition versus performance deficits with school personnel, I often get the response, "It's definitely not a skill acquisition deficit, because I've seen him/her do it in the past." In other words, since the staff had observed the child demonstrate a behavior in the past, they believe the child possesses the particular skill, and should be able to demonstrate it on request. I often point out the problem with this logic by sharing the story of me learning how to tie a tie. Recently a friend of mine attempted to teach me how to tie a tie (I've lived a sheltered life!). By the end of the training session I had seemingly mastered this intricate task. However, as I was in my hotel room in New Orleans preparing for a presentation, I went blank and forgot some of the steps in the process. Even though I had tied it once or twice before, I could not produce the behavior once I was on my own. Without my friend's continual prompting and coaching, my skill deficit remained. Even the best-designed behavioral contract would not have helped me at this point. Instead, to achieve a level of mastery, I needed more practice and most importantly, more instruction on tying a tie (or someone to always tie it for me).

Implementation

For most children, basic social skills (e.g., turn taking, initiating conversation) are acquired quickly and easily. For children with autism, the process becomes much more difficult. Whereas, many children learn these basic skills simply by exposure to a situation (or "osmosis"), children with autism often need to be taught explicitly. The social skills training component consisted of five core strategies:

1. role-playing;
2. videotaped self-modeling;
3. promoting reciprocal interactions;
4. recognizing and understanding feelings; and
5. recognizing and understanding thoughts.

In addition to the above social skills strategies, the program included a number of techniques designed to specifically address the anxiety and completion of homework.

Role-playing was used primarily to address interaction skills. It was determined that Charlie had great difficulty initiating social interactions and getting other children to engage in activities with him. He was dependent on the advances of other children; which were infrequent. Charlie only engaged in activities with other children if these children initiated the interaction. Role-playing consisted of acting out various social interactions that Charlie would typically encounter. During one of the role-play scenarios, Charlie was required to initiate a conversation with me as I was engaging in a task. He would then have to ask to join in, or ask me to join him in another activity. The latter proved to be the most difficult for Charlie. Charlie was solely responsible for initiating and maintaining the conversation during the role-play. During the first few sessions, Charlie seemed to get "stuck" in conversations, often for minutes without knowing what to say or how to proceed. As the sessions progressed, his skills improved considerably. Observations confirmed that these skills began to improve at school as well.

The use of video taped self modeling (VSM) has been shown to be effective for children with a variety of disorders including: attention deficit/hyperactivity disorder (ADHD), depression, aggressive/disruptive behavior, autism, and motor problems (Buggey, 1999). Buggey outlines two standard methods of VSM, role-playing and natural behavior in the child's natural environment. Videotaping a role-play scenario is less time consuming and since the role-play is pre-planned, the therapist has more control over the behavior of the child. Buggey also states that VSM has an added advantage over peer and adult modeling because no peer or adult could possess the exact individual characteristics of the target child. In addition, Buggey believes that children will benefit from the confidence that would result in observing their own success. This is particularly true for children with disabilities who learn at an early age that their limitations and failures are of

great importance to others. As such, an effort was made to show Charlie footage that displayed predominantly successful interactions.

Videos of a previous role-play scenario were reviewed with Charlie each session. A strength of VSM is that it allows for the use of coaching and social problem solving. Three steps in the coaching process include (Gresham, 1995):

1. presenting social concepts or rules;
2. providing opportunities for practice or rehearsal; and
3. providing specific informational feedback on a behavioral performance.

All of these steps were utilized during the viewing of the VSM procedure. It provided an extremely effective vehicle for giving Charlie additional feedback and instruction.

Another area of concern for Charlie, and other individuals with autism spectrum disorder, was the lack of reciprocal interactions. Individuals with autism spectrum disorder often engage in one-sided interactions that lack give and take. In conversations, Charlie would rarely ask questions of others, or talk about the interests of others. To address this, I created an activity called, "Newspaper Reporter." For this activity, Charlie was required to play the role of a newspaper reporter and ask questions of others. The form he used consisted of rather simple questions, including a person's name and age, hobbies and interests, and favorite foods. The goal was simply to get Charlie in the habit of asking questions, thereby increasing the give and take of his conversations. Later in the sessions, Charlie was encouraged to ask additional probing questions to gain additional information from the other person. This became a favorite activity for Charlie, as he often asked for extra forms to take home.

Recognizing and understanding the feelings and thoughts of self and others is often an area of weakness for individuals with autism spectrum disorder (Attwood, 1998). Selected cards from the Robert's Apperception Test were used to ascertain Charlie's level of awareness concerning the feelings of others. The cards portray characters participating in various social situations. Charlie was asked to identify how the characters were feeling based on facial expressions, posture, and the situation portrayed in the picture. In addition, Charlie was shown pictures of facial expressions and asked to distinguish between the various feelings displayed. He was also asked to demonstrate various expressions, and to draw them on a board.

Individuals with autism spectrum disorder are often described as having difficulty recognizing and understanding the thoughts and perspective of others (Attwood, 1998). A thought bubble activity was used to help Charlie infer the thoughts of others. The idea was to teach Charlie that we can often determine what others are thinking by listening to what they are saying. For instance, if Michael is talking about basketball, he is probably thinking about basketball as well. During the sessions, Charlie was read statements (similar to the one just described) and asked to fill in the thought bubble for the character. For instance, for the statement above, Charlie would write the word "basketball" in a thought bubble to describe what Michael was thinking. In addition, if- then statements were used to infer the interests of others. For instance, if Michael is talking about basketball and thinking about basketball, then he probably likes basketball as well. Recognizing the interests of others is extremely important to initiating interactions and ultimately developing friendships.

Relaxation techniques have been used extensively by cognitive psychologists to reduce anxiety. Charlie received instruction in the areas of tension release and breathing. Tension release consisted of making a tight fist for five seconds for a total of five sets. Breathing exercises consisted of teaching Charlie to breathe properly during stressful situations. Breaths should be slow and deep, inhaling through the nose and exhaling through the mouth. It helped Charlie to visualize smelling a rose as he inhaled (about 3 seconds) and blowing on a candle without blowing it out on the exhale (about 2 seconds). A Social Story (Gray, 1995) was developed to teach Charlie when to use the relaxation techniques (e.g., thinking about bad weather). After Charlie read the social story, he then engaged in a role-play activity to practice the information provided in the story. Charlie was encouraged to utilize these skills whenever he felt himself becoming

nervous (a feeling discussed during the sessions). Charlie was also given opportunities to practice these new skills during the sessions; for instance, taking a ride on an elevator (an anxiety provoking activity for Charlie).

In addition to social skills training, other strategies were employed to address Charlie's difficulty attending to tasks and completing homework. A self-monitoring checklist was designed to increase Charlie's attention to task during homework activities. Also, daily report cards were used to facilitate communication between home and school and to ensure Charlie was taking home his homework. These strategies are beyond the scope of the present article so they will not be covered in detail. I mention them only to provide an example of how social skills training programs can (and should) be used in conjunction with other strategies.

Results and Conclusion

Towards the end of the training program (about 10 months), data again were collected related to social interactions, anxiety, and depression using the PIC, RCMAS, and interviews. Post-test scores on the PIC revealed significant reductions in anxiety and depression. Similar scores were observed on the self-report measure (the RCMAS) with significant reductions in the areas of physiological symptoms, worrying, and social concern. Most importantly, Charlie's mother and school staff reported marked improvement in the areas of social interactions. They noted that Charlie appears to be a happier child, often smiling and joking with others. Charlie has become much more confident in social situations. He is interacting with other children more frequently and is beginning to develop quality friendships for the first time in his life.

Inattention remains a concern for Charlie's mother and school staff, and will be a focus of the next school year. Charlie still has a tendency to be inattentive when he is not actively engaged in a task (especially class lectures!). Although the present program did not result in significant improvements in the area of attention, the reduction of anxiety should allow Charlie's team to address this issue more effectively.

The purpose of this article is not to advocate the use of the present program over others currently being utilized in the field. Instead, the goal is simply to illustrate how the use of a comprehensive social skills training program, matched to a child's individual needs, can be beneficial for a child with an autism spectrum disorder. More work is needed to demonstrate if the present program would be effective for other children along the autism spectrum. Not all programs are appropriate for every child. Therefore, a multi-dimensional intervention strategy that addresses the individual characteristics (both strengths and weaknesses) of the child is imperative. As was the case in Charlie's program, great care and planning needs to be put forth to ensure the strategies used in the program meet the individual needs of the child.

Even though wonderful gains were made, many obstacles and challenges remain for Charlie as he gets older. We cannot forget that autism is a life-long disorder. Charlie's parents and school staff will need to work diligently to address challenges and difficulties as they arise. Fortunately, he has been blessed with a school staff that is open-minded and willing to make the extra effort to meet the needs of their students. Charlie is also fortunate to have supportive and caring parents who have and will continue to sacrifice much to ensure he is given the opportunity to reach his full potential. For Charlie, the future is certainly beginning to look bright.

References:

- Attwood, T. (1998). Asperger's syndrome: A guide for parents and professionals. London: Kingsley Publishers.
- Buggey, T. (1999**). Videotaped self-modeling: Allowing children to be their own models. Teaching Exceptional Children**, (4), 27-31.
- Gray, C. A. (1995). **Teaching children with autism to read social situations**.
- In A. Quill (Ed**.), Teaching children with autism: Strategies to enhance communication and socialization** (pp. 219-242). New York: Delmar.
- Gresham, F. M. (1995). **Best practices in social skills training**. In A. Thomas & J. Grimes (Eds.), Best practices in school psychology (pp. 1021-1030). Washington, D. C.: NASP.

Reprinted with permission from the Indiana Resource Center for Autism
http://www.iidc.indiana.edu/~irca/ftrainpapers.html

A notice to our readers…

The founders and contributors of BBB Autism Support Network are not physicians; we are parents contributing in a totally voluntary capacity.

This article may reference books, other articles and websites that may be of interest to the reader. The editor makes no presentation or warranty with respect to the accuracy or completeness of the information contained on any of these websites, articles or in the books, and specifically disclaims any liability for any information contained on, or omissions from, these articles books or websites. Reference to them herein shall not be construed to be an endorsement of these web sites or books or of the information contained thereon, by the editor.

Information on PDD/ASD can quickly become outdated. If any of the information in this document proves to be inaccurate when you research it, kindly informing us by emailing: liz@deaknet.com. Thanks for your help and support.