Using Comic Strip Conversations to Increase Social Satisfaction and Decrease Loneliness in Students with Autism Spectrum Disorder

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Abstract: Comic Strip Conversations have been used to improve the social skills of students on the autism spectrum. Research on the effectiveness of this strategy was extended to three lower elementary-aged male students diagnosed as exhibiting high-functioning autism. One elementary special education teacher and her 2 paraprofessionals used Comic Strip Conversations for a period of 6 weeks with 3 students who exhibited signs of loneliness. All participants became more involved socially and actively began to seek friendships. The educators working with them noted increased friendships in the classroom and on the playground as well as visible signs of social satisfaction among the participants.

Research has demonstrated that children with autism spectrum disorder (ASD) have higher levels of loneliness and social dissatisfaction than their typical peers (Bauminger & Kasari, 2000; Bauminger, Shulman, & Agam, 2003; Huang & Wheeler, 2006). This is believed to be due to impaired communication, social cognition, and the processing of emotions that is typical of children with autism (Travis & Sigman, 1998). As a result, students with ASD frequently lack social skills important for positive peer relationships (Huang & Wheeler, 2006; Travis & Sigman, 1998). Thus, social relationships between these students are limited and they are more likely to feel lonely and have fewer quality friendships.

In fact, social dysfunction is perhaps the most defining and disabling feature of autism (Rogers, 2000). Although children with autism have been found to be lonelier than their typical peers, what is intriguing is that they often do not have a complete understanding of their relationships with others (Bauminger & Kasari, 2000). Bauminger, Shulman, and Agam (2004) found that the overall quality of the friendships of children with autism was poorer, yet some perceived their friendships as closer than what the typical peers perceived them to be.

Because children with autism have been found to be responsive to a wide variety of social interventions (Greenway, 2000; Attwood, 2000), Gray (1995a, 1995b) designed Social Stories and Comic Strip Conversations for children with autism as interventions for teaching social skills for those with limited language expression. There have been several encouraging studies on the use of these interventions with students with ASD (Glaeser, Pierson, & Fritschman, 2003; Pierson & Glaeser, 2005; Rogers & Myles, 2001; Rowe, 1999; Swaggart et al., 1995).

Comic Strip Conversations are a variation of Social Stories. Whereas a Social Story is written so that a student can experience a situation and “rehearse” positive social behaviors, a Comic Strip Conversation is built upon pictures rather than text, and can be used to review and discuss alternatives to a social situation. Like Social Stories, one use of Comic Strip Conversations is for students to work with an adult to resolve difficult social situations. Simple figures and other comic strip symbols are drawn by the student or the adult to illustrate a social situation and allow discussion of the situation including missed social cues. Planning a different outcome for future
interactions is the goal (Rogers & Myles, 2001; Pierson & Glaeser, 2005).

The situations displayed in these “stories” are taken directly from the student’s daily life, and therefore relate directly to the student’s social skills in given situations. The “comic strips” are designed to provide students with alternatives for behavior that will quickly and directly affect their peer relationships. Therefore, the use of Comic Strip Conversations is one method of effectively teaching students with autism, and possibly those with other language expression difficulties, how to better manage and maintain their interpersonal relationships and to effectively problem solve in social situations; thus, leading to less evidence of feelings of loneliness and social dissatisfaction. The following study extends the Comic Strip Conversation research to include students with ASD who exhibit visible signs of loneliness and social dissatisfaction.

Method

Setting

The researchers were 1 teacher of special education and 2 paraprofessionals who worked with her in a self-contained classroom for students with mild-moderate autism. The students attended school in a segregated setting, which meant that a high concentration of the social situations occurred in or around the students’ classroom separated from the general education student population. The school was situated in a large suburban school district in Southern California.

The teacher was a veteran special education teacher with 5 years of teaching experience and a master’s degree who was concerned about the loneliness of 3 of the highest functioning students with ASD in her classroom. Both paraprofessionals had been employed by the district for more than 10 years and had been working in a classroom for students with autism for more than 6 years. Each had attended one day district training on social skills strategies for students with disabilities. At the district training, Comic Strip Conversations and Social Stories were two of the interventions introduced and steps were taught on how to appropriately implement these strategies. The teacher and paraprofessionals planned to utilize Comic Strip Conversations and to improve the friendship skills and, therefore, reduce loneliness, of the students who exhibited the most severe lack of social skills. They consulted with the authors of this article, who had conducted previous research with Comic Strip Conversations as an intervention for children with autism and various other disabilities, for further training and guidance during the study.

Baseline Data Collection and Selection of Participants

In order to determine which students needed the Comic Strip Conversation intervention, the teacher and paraprofessionals collected baseline anecdotal data on the social skills deficits of all students. Specifically, the apparent levels of loneliness and visible signs of social dissatisfaction of all students in the special day classroom (n = 10) were documented as determined by teacher and/or paraprofessional observation of loneliness verbalizations (i.e., “No one will play with me.”), number of appropriate conversation initiations, number of smiles related to peer interactions, and visible desire to play with others in the classroom or on the playground.

The teacher and paraprofessionals observed and checked behaviors by recording notes in journals for two weeks prior to teaching the specific students how to use Comic Strip Conversations. Once data was collected, the teacher and her paraprofessionals consulted with the authors to determine which students seemed to have the most severe social skill deficits as illustrated by the baseline data and, therefore, would benefit most significantly from the use of Comic Strip Conversations. Three students were identified as having the most severe social skill deficits as illustrated by the number of incidents of negative behaviors affecting their levels of loneliness and social satisfaction.

Informed consent letters were sent home to parents of the three target students. Parents of all students agreed to a six week intervention using Comic Strip Conversations and for the data to be published by the authors. Next, students were told about the intervention and all agreed to be a part of the study.

The students had been diagnosed by district
criterion as on the autism spectrum and were placed in a special day classroom for students with high functioning autism. Students were 6, 7, and 8 years old at the time of the study. All students received more than 50% of their academic instruction within a special education setting.

Baseline data for each student were as follows:

Student 1 repeatedly told his teacher and the paraprofessionals in his classroom that he had no friends and that no one would play with him. When he was observed on the playground, it was evident why he had no friends. He enjoyed “tagging” other children to gain their attention and would also hit and kick fellow peers (from his special day class as well as peers from the general education population) and disregard their pleas to stop. Sometimes these acts were an attempt to get the ball, but mostly they were enacted because he felt angry or frustrated toward another student. This occurred an average of four times during a 15 minute recess period during two weeks of observation by the teacher and paraprofessionals prior to the intervention.

Student 2 appeared quite shy when he was first introduced to either a peer or an adult. He did not exhibit eye contact nor did he readily greet people. Then, when he was prompted by his teacher or the paraprofessionals in his classroom, he spoke his greeting loudly. Overall, he was especially awkward at the beginning of social interactions. He frequently verbalized to his teacher and paraprofessionals that he wanted to have friends and have “people to play with.”

Student 3 played well with peers for an average of 5 minutes in the classroom and/or on the playground before he would get into an argument about something that he believed was never his fault. If a peer wanted to play something different or had different rules for a particular game or activity, Student 3 would refuse to play and begin to cry. In addition, he frequently stated, “He did it on purpose” if a student accidentally bumped him or if he was hit by a ball on the playground. This quickly led to few peers wanting to initiate play with him. Student 3 appeared to be talking less overall and began to tell his parents that he did not want to come to school.

**Intervention**

The intervention was designed to increase the frequency of positive social behaviors, defined by the teacher and paraprofessionals as “target behaviors”. They determined that the target behaviors had an impact on social competence, and as a result, feelings of loneliness and satisfaction with relationships. The target behaviors included increased eye contact, appropriate voice volume in a social situation, increased and appropriate social greetings, being involved in playground games using hands and feet appropriately, accepting responsibility for inappropriate actions and learning how to apologize to peers.

The teacher and paraprofessionals again consulted with the authors on how to design an effective intervention using Comic Strip Conversations. The authors modeled the strategy, assisted the teacher and paraprofessionals in determining when use of a Comic Strip Conversation was appropriate, as well as assisted with the initial implementation.

Target behaviors were defined for each student in order to focus the social skills intervention. These were:

Student 1: Increase appropriate use of hands and feet when playing games on the playground, which may result in more inclusion by peers during recess.

Student 2: Increase social greeting with eye contact and appropriate voice volume, which may result in greater social acceptance.

Student 3: Accept responsibility for inappropriate actions; apologize to peers when a mistake or bad choice is made so that peers choose to initiate play.

**Procedure**

Comic Strip Conversations guidelines written by Glaeser et al. (2003) were followed. Once target behaviors were defined, the teacher and/or paraprofessionals would remove the student from the situation, sit him down at a small table in the back of the classroom, and sit side by side to initiate the drawings. The teacher and/or paraprofessionals led the students in creating the Comic Strip Conversations using white boards and markers.

Students began by creating a Personal Sym-
bols Dictionary to illustrate the meaning of a specified number of icons to be used to recreate the social situation that just occurred. Gray’s (1994) Conversation Symbols Dictionary was introduced within the first week of the intervention. It included eight symbols for basic conversations such as listening, interrupting, talking and thinking. Students frequently added to their Personal Symbols Dictionary to include additional people or other icons representing the location of the situations being illustrated.

After a negative social experience occurred in either the classroom or on the playground, a target student was encouraged to draw specific people and locations during the social situation that just occurred. They also wrote their thoughts and feelings that occurred at the time of the situation. The teacher and/or paraprofessionals would suggest positive ways to resolve conflicts, different outcomes for situations, or other models of appropriate behaviors. Addressing the target behavior in the drawings from the student, the teacher and/or paraprofessional helped the students focus on one or more of the following questions in their Comic Strip Conversations in response to the target behaviors: (1) Where are you?, (2) Who else is here?, (3) What are you doing?, (4) What happened? What did others do?, (5) What did you say? (6) What did others say?, (7) What did you think when you said that?, and (8) What did others think when they said that/did that? (Gray, 1994). The perspective of the teacher and/or paraprofessionals of the social situation was shared with the student, but then the student was allowed to guide the conversation. The teacher and/or paraprofessionals redirected the students’ attention to appropriate responses if the student appeared to need more guidance. Students were given assistance as needed if the teacher and/or paraprofessionals sensed that the student was confused or unclear about the best way to handle that particular social situation. Once appropriate social behaviors were identified, the Comic Strip Conversation was completed. Appropriate social behaviors were reinforced throughout the day when the teacher and/or paraprofessional would remind the students of a previous Comic Strip Conversation’s solution.

Each student was given an opportunity to use Comic Strip Conversations on a daily basis during the following time periods: after recess, after cooperative groups (centers), after lunch, after inclusion in general education classrooms and during any other time period when the target behavior needed to be reinforced. If a social situation became volatile or if social skill training was needed during these time periods for any of the target students, the student would be removed from the situation and the teacher and/or paraprofessionals would then work with the individual student to create a Comic Strip Conversation illustrating the aspects of that particular situation and proposing a more positive solution.

**Results**

The teacher and/or paraprofessionals consistently observed social behaviors of the three students for 6 consecutive weeks. Qualitative data indicated significant changes in target behaviors for all participants. Anecdotal evidence written by the teacher and paraprofessionals indicated that the desired outcomes were emerging with all participants. Students demonstrated improvement in social skills overall as well as the specific social skill or behavior that was identified as a deficit by the teacher and paraprofessionals. Notes on each participant were also analyzed for decreased levels of loneliness at the end of the 6 week Comic Strip Conversation intervention. Analysis of this data showed that all students had visible signs of social satisfaction, which included fewer loneliness verbalizations, increased chatter/talkativeness with peers, more smiles, and a greater desire to participate with peers in the classroom and on the playground.

**Overview of Change in Students’ Social Skills**

**Student 1—Appropriate use of hands and feet during playground games.** After introducing Comic Strip Conversations, Student 1 continued to engage in inappropriate use of his hands and feet while on the playground, but had decreased this behavior from four times to an average of twice during a 15 minute recess period throughout the third week of the intervention. Although he still disregarded the peers’ requests to stop bothering them, the behavior was 50% less frequent.
During the Comic Strip Conversation intervention, Student 1 was given alternative solutions on how to gain peer attention. Student 1 was explicitly shown the positive outcomes of asking an adult supervisor for help when he felt that other students were being unfair to him. The situation was clearly drawn with emphasis on what the peers may have been thinking when they were hit and kicked by him on the playground. He began to help generate acceptable ways to enter into social situations including playground games.

By the sixth week, Student 1 had increased appropriate use of his hands and feet during playground games by 75%. He also gained one friend whom he would eagerly seek when it was time for recess. Student 1 continues to use Comic Strip Conversations as one avenue to assist him with his playground behavior.

**Student 2—Increase eye contact and voice volume in social greetings.** After the first week of drawing the Comic Strip Conversation for social greetings each morning, Student 2 wanted to draw the complete Comic Strip Conversation on his own. He clearly understood what was expected of him (eye contact with the person being greeted and use of appropriate voice volume for the greeting) and enjoyed drawing and writing this social situation. However, he did not generalize these comic strips to social interactions with others until the fourth week of Comic Strip Conversation instruction.

On day three of the fourth week, Student 2 greeted a special day class peer with eye contact without being prompted by his teacher or one of the paraprofessionals. In this same instance, he used appropriate voice volume and tone when he said, “Hi Kyle. Come play on the computer with me.” The teacher and paraprofessionals praised him for his appropriate eye contact and voice volume and encouraged him to continue to greet others with these new skills. However, he did not continue to use these skills until the final week of the intervention.

On the first day of the sixth week (the final week of the Comic Strip Conversations intervention), Student 2 appropriately greeted a peer on the playground after reviewing his Comic Strip Conversation earlier that morning. This peer seemed surprised to be greeted by him, but said, “Let’s go on the swings.” The 2 students then ran over to the swings and played together for the rest of the 15 minute recess period. After recess, the teacher then sat down again with Student 2 to reinforce his appropriate social greeting. He seemed very pleased by the extra praise. For the remainder of the final week of the intervention, Student 2 greeted peers appropriately approximately 50% of the time. This was a vast improvement on past social practices when he did not use eye contact or appropriate voice volume unless prompted by an adult. Student 2 continues to use Comic Strip Conversations to reinforce appropriate social greetings.

**Student 3—Accept responsibility for actions; apologize as necessary.** Comic Strip Conversations were introduced as a way to replay a social situation with the emphasis on taking personal responsibility rather than blaming social problems on others. The goal was that Student 3 would be less volatile with peers; thus, he would gain new friendship skills so he could enjoy play time with them.

An average of six incidents occurred each day during the two observation weeks. The Comic Strip Conversations intervention began immediately following the first incident, which occurred on the first day of the planned 6 weeks of intervention. Following each social situation in which Student 3 did not take responsibility or blamed an accident on a peer, a Comic Strip Conversation was drawn. The solution focused on understanding that everyone makes mistakes and an apology is appropriate for mistakes as well when a bad choice is made.

The teacher and paraprofessionals were using Comic Strip Conversations on an average of twice daily for Student 3 in the final week of the intervention. Although they continue to use Comic Strip Conversations for this student, they were able to increase his understanding of the importance of taking responsibility and appropriate apologies by 66%. It is now evident that he fits in more naturally with his peers in the classroom and on the playground. His parents also noted that he wants to come to school each day and looks forward to playing with particular friends on the playground.
Overview of Results

The teacher and paraprofessionals specifically looked for improvement in the following areas: (1) target behaviors/social skills, (2) gaining new friendships or someone to play with on the playground, (3) fewer loneliness verbalizations such as “No one wants to play with me” or requesting that an adult plays with him, and (4) an increase in smiles, less socially withdrawn, more talkative, and happier overall. All participants were noticeably more socially satisfied as documented by the teacher and paraprofessionals in daily classroom notes. Student 1 improved 75%, Student 2 showed intervention success by 50% and Student 3 demonstrated gains by 66%.

Discussion

Overall, these educators found significant improvements in social skills and desired classroom outcomes using Comic Strip Conversations for students with ASD at the primary level. As rated by the teacher and paraprofessionals, the participants were better able to generate solutions to social situations after using Comic Strip Conversations than before they were introduced to the strategy. Comic Strip Conversations was one avenue to assist these students in having better self-perceptions about their behavior in a social situation. Students improved their abilities to be included in classroom activities and playground games, increased appropriate skills for social greetings, and were able to learn the importance of taking responsibility and apologizing when necessary in social situations. All of these skills led to improved peer relationships and fewer signs of loneliness.

Comic Strip Conversations were used consistently over 6 weeks and this is an important aspect of the success of this intervention. In addition, because the students were willing to participate in this study and understood the specific behavior and social skills that were being addressed, the improvement of the targeted behaviors was greater than if the students were not willing to be involved.

One limitation of this research was that there were only three students who were targeted for intervention using Comic Strip Conversations. Future research should focus not only on more participants, but also on students with social skill deficits from a variety of general and special education settings. In addition, because this study was classroom-based action research, and the instruments used to measure student behavior were designed by the researchers themselves, and were not tested for reliability or validity, the results can not be generalized easily to other classrooms or students. However, the results do suggest that future quasi-experimental research on the effectiveness of these strategies might show positive results. The authors would also like to see future research expand on this action research to determine how typical peers could assist students with disabilities with appropriate social skills by using Comic Strip Conversations.

References


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