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Examining the Effects of a Behavioral Skills Training Package on the Emotional Regulation Skills of a Child with Autism Spectrum Disorder

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EXAMINING THE EFFECTS OF A BEHAVIORAL SKILLS TRAINING PACKAGE ON THE EMOTIONAL REGULATION SKILLS OF A CHILD WITH AUTISM SPECTRUM DISORDER

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Skills of a Child with Autism Spectrum Disorder

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Abstract

One of the most common symptoms experienced by individuals diagnosed with autism spectrum disorder (ASD) is a difficulty understanding, interpreting, and dealing with one's own emotions and the emotions of others which often leads to an impairment in regulating emotional experiences. Emotional regulation includes the processes whereby we influence which emotions we have, when we have them, and how we experience and express them. The purpose of the current study is to function as a preliminary analysis to determine if a behavioral skills training (BST) package with video modeling (VM) can be used to increase appropriate emotional regulation skills for a child diagnosed with ASD. In general, the results of this study suggest a possible increase in emotion regulation with results similar to other BST data regarding the addition of a contingency including the use of positive reinforcement for appropriate behavior.

Keywords: Autism spectrum disorder, social skills, video modeling, emotional regulation, behavioral skills training

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Introduction

Autism Spectrum Disorder and Emotional Regulation

According to the American Psychological Association, *autism* is defined as a lifelong neurodevelopmental disorder characterized by distinct impairment in social interactions, trouble with verbal and nonverbal communication, narrow interests, and repetitive behaviors (American Psychological Association, 2021). The degree of impairment in functioning varies significantly between individuals diagnosed; thus, the official term used for diagnosis in The Diagnostic and Statistical Manual of Mental Disorders (5th ed.; DSM–5; American Psychiatric Association, 2013) is Autism Spectrum Disorder (ASD). Social-emotional reciprocity defects for people with ASD can range from abnormal social approaches to failure to initiate or respond to social interactions. Deficits in nonverbal communicative behaviors can range from poorly integrated verbal and nonverbal communication to a total lack of facial expressions and nonverbal communication. In addition, limitations in developing, maintaining, and understanding relationships are common, for example, having difficulties adjusting behavior to suit various social contexts and an absence of interest in peers (American Psychiatric Association, 2013).

One of the most common symptoms of ASD is difficulty understanding, interpreting, and dealing with one's own emotions and the emotions of others, leading to an impairment in regulating emotional experiences (Scarpa & Reyes, 2011). Emotional regulation includes the processes whereby we influence which emotions we have, when we have them, and how we experience and express them (Geller, 2005). The process of regulating emotions may include decreasing, increasing, substituting, or maintaining a particular emotion before or during an emotional experience. Playing a part in this process is the cognitive appraisal of the situation, the physiologic reaction, the emotional expression (verbal or nonverbal), prior socialization, and

learned behavior from past experiences (Geller, 2005). The acquisition of these numerous

aspects of regulation results from the interaction between the development of underlying brain

mechanisms and prior life experiences (Scarpa & Reyes, 2011).

For those on the spectrum, the development of emotional regulation is often atypical.

Biological differences in processing speed, incoordination of socially relevant motor actions like

facial expressions, delayed facial perception abilities, hindered nonverbal cues, and sensory

overwhelm are common (Geller, 2005). In addition to the failure experienced by many of these

individuals to recognize emotions in themselves as well as in the displays of others, they may

also struggle to differentiate between different emotions (Geller, 2005). For example, these

individuals may experience all negative emotions as fear, or be unable to distinguish excitement

from anger. There is, of course, the instance of people crying when they are exceptionally happy,

which, as may be expected, can prove incredibly confusing for those who struggle to distinguish

emotions.

Additionally, there are individual differences in arousal levels. Those with ASD often

experience highly variable or overly sensitive arousal states. For a child, this may present in

displays of extreme emotional reactions that may not be appropriate or expected given the

current social situation. The uneven development across such skills may result in significantly

discrepant maturity levels (Geller, 2005). One of the most pertinent issues involved in this lack

of emotional regulation ability is that although social and emotional maturity may severely lag,

society generally expects individuals to behave in a certain way based on age or intellect (Geller,

2005). So, while development generally proceeds forward in a more or less predictable manner,

emotional regulation for those diagnosed with ASD may be delayed or altered by countless

subtle constitutional differences interfering with their ability to develop and maintain successful

social interactions. Although there has been a significant increase in the number of interventions for children with ASD, the literature on teaching emotion recognition and regulation skills has been scarce.

Common Interventions for Teaching Children with ASD

As previously mentioned, there are several different effective interventions that can improve a child's functioning. For instance, applied behavior analysis (ABA) is the application of basic behavioral principles in order to understand and improve behavior by focusing on observable, measurable, and objectively defined behavior (Miltenberger et al., 2021). There is not just one type of ABA, and there are several ways that various ABA interventions have been used to teach complex skills. Many researchers have proven these interventions effective, and the U.S. Surgeon General has approved ABA. According to Mental Health: A Report of the Surgeon General (1999), over thirty years of research have demonstrated the efficacy of ABA. The subsections below briefly review three common effective ABA interventions that will be utilized to teach emotion recognition and regulation skills to a child diagnosed with ASD in the present study.

Video Modeling

One strategy that has proven to be effective in teaching skills to children diagnosed with ASD is the use of Video Modeling (VM). Video models are instructor-created videos demonstrating a desired skill or behavior performed at a level higher than a learner typically displays (Murry, 2018). Past literature has proven video modeling's efficacy in teaching various skills to children with ASD, including social initiations, perspective-taking, giving compliments, and engaging in conversational speech (Cotter, 2010). Lee et al. (2022) investigated the differential effects of video modeling and picture-based interventions for teaching children with

ASD to recognize emotions in context. They found that children responded more accurately with video modeling than with picture-based interventions. Additionally, they required fewer trials to reach the criterion and displayed longer on task-behavior with video modeling. It has been hypothesized that many children with autism respond best to visual stimuli, so video modeling, which depends heavily on visual observations, maybe a type of instruction best suited to their particular needs (Cotter, 2010).

Social Skills Training

Social skills training is another type of intervention rooted in the scientific principles of ABA. Done in a group or an individual setting, social skills training can help children with autism improve their ability to navigate social situations (American Psychological Association, 2021). Social skills training is not a specific curriculum; rather, it is a collection of behavioral practices which aim to teach children age-appropriate social skills and competencies, including communication, problem-solving, decision-making, self-management, and peer relations to facilitate the understanding of social contexts that might be otherwise difficult to interpret (US Department of Education, 2013). Prior literature recommends that social skills training be included in any comprehensive intervention program for children with ASD and strongly encourages social skills training to be part of routine care for this population (Bohlander, Orlich, & Varley, 2012). In their review of social skills manuals for adolescents with ASD, Hall et al. (2018) found that 88% of manuals focused on emotions, suggesting that using social skills as a framework for teaching emotion regulation is valuable.

Behavioral Skills Training

Another behavioral intervention that has played a significant role in teaching complex skills to individuals, including those with ASD, is Behavior Skills Training (BST; Aguirre,

O'Neill, Rehfeldt, & Boyer, 2014). BST typically consists of instruction, modeling, rehearsal, and feedback. Specifically, when used to teach emotions, instruction includes identifying and labeling the emotion and discussing the rationale for displaying a particular emotional response. Modeling involves describing and demonstrating the behavior, which can be done through live or video modeling, as in the present study. Rehearsal and feedback involve practicing the behavior and responding to the participant based on the relevance of their behavior through the delivery of a consequence. Because of its active learning component, BST is much more effective than an informational approach alone (Miltenberger, 2008).

BST has been proven effective in teaching safety skills such as teaching firearm safety to children (Miltenberger et al., 2004), teaching fire safety and evacuation to young children with autism (Garcia et al., 2016), teaching abduction-prevention skills to schoolchildren (Johnson et al., 2006), and teaching children with autism to seek help from law enforcement officers when lost (Kos, 2019). BST has also been implemented to teach diverse daily living skills, such as teaching basic computer skills to a young adult with autism (Sump et al., 2018), developing shopping skills (Adjorlu et al., 2017), increasing on-the-job independence (Weaver, 2015), and teaching caregivers to implement teaching procedures for activities of daily living skills with their child (Preas & Mathews, 2021).

Finally, BST has been used to effectively teach a number of social skills, such as teaching caregivers to support social skill development in their child with ASD (Hassan et al., 2018), conversation skills to young adults with ASD (Nuernberger et al., 2013), job interview skills (Kelly et al., 1980), and teaching the implementation of the picture exchange communication system (PECS) to adults with no history of any functional communication system (Rosales et al.,

2009). However, while BST is used frequently to teach complex skill sets, it has been minimally

examined to teach emotion recognition and regulation skills to those with ASD.

Two recent studies have examined the efficacy of teaching emotion regulation skills to

young adults with ASD online in both individual (Curtis, 2022) and group (Perron, 2022)

formats. Both studies used a BST model to teach emotion regulation through VM. Results

demonstrated potential support for reducing difficulties with emotional regulation in addition to

showing improvements in reducing problematic internalizing behaviors (Curtis, 2022; Perron,

2022). Additionally, when done in an individual format, self-control behaviors were increased

(Curtis, 2022). Although both studies show some support in the use of BST to teach emotion

regulations skills with young adolescents and adults with ASD, it is not known if this format

could be effective with children with ASD.

The Current Study

The purpose of the current study is to function as a preliminary analysis to determine if a

behavioral skills training package can be used to increase appropriate emotional regulation skills

for a child diagnosed with ASD. Three research questions were addressed in this study. First,

will there be an increase in appropriate emotional regulation skills for the child with ASD after

implementing a social skills program to teach emotional regulation using a video modeling

technique? This was determined by whether scores improved from the pretest to the posttest on

the Difficulties in Emotional Regulation Scale (DERS) after implementing a social skills

program to teach emotional regulation using a video modeling technique (Curtis, 2022; Perron,

2022). Second, will there be an increase in appropriate social skills for the child with ASD after

implementing a social skills program to teach emotional regulation using a video modeling

technique? This was determined by if scores improved from the pretest to the posttest on the

Social Skills Rating System (SSRS) after implementing a social skills program to teach emotional regulation using a video modeling technique (Curtis, 2022; Perron, 2022). Third, would emotion regulation skills generalize to novel scenarios and with a caregiver after intervention? This was determined by using individualized generalization probes before, during, and after intervention.

Method

Participant

The participant in this study, Summer, was an eight-year-old female recently diagnosed by a mental health professional with ASD and attention-deficit/hyperactivity disorder (ADHD) according to the DSM–5 (American Psychiatric Association, 2013). Summer was selected for participation after meeting the inclusion criteria of being between the ages of 5 and 12, having a diagnosis of ASD, and having parents who report a deficit in social skills and emotional regulation, as well as having the ability to follow 2- to 3-step instructions without displaying a high rate of noncompliance or aberrant behaviors. Recruitment occurred via distributing a flyer posted on social media and sent out to local ABA businesses in southern Minnesota.

According to her age, Summer scored low on the Vineland-3 for the communication domain with a percentile rank of 39 and very low for her age on the socialization domain with a percentile rank of 2.

Throughout the intervention, it was determined by the researchers and by Summer's parents that she displayed several problem behaviors. These included noncompliance in the form of protests, arguing, and perpetual compromise; negative self-talk and negative statements towards others; aggression, including throwing, banging, yelling, and hitting; and difficulty transitioning from preferred to unpreferred tasks including in preferred topics of conversation.

Materials

The Vineland Adaptive Behavior Scales – Third Edition (Vineland-3) Comprehensive Parent/Caregiver Form was completed by Summer's mother in order to assess Summer's communication and social skills before intervention (Sparrow et al., 2016). Specifically, the communication skill domain was completed to assess receptive and expressive language skills; and the social skills domain was completed to assess interpersonal relationships, play and leisure, and coping skills.

The Difficulties in Emotion Regulation Scale (DERS) is a 36-item self-report form comprising statements regarding emotional regulation measured on a Likert scale of 1-5 for answers of almost never, sometimes, about half the time, most of the time, and almost always for each statement (Gratz & Roemer, 2004). This test was rephrased for the parent to answer with "I" statements being changed to "my child" statements. Examples of items on this measure include "my child is clear about their feelings" and "when my child is upset, they become out of control." The participant's parent completed this scale before the first session and after the last session to assess nonacceptance of emotional responses, difficulty engaging in goal-directed behavior, impulse control difficulties, lack of emotional awareness, limited access to emotion regulation strategies, and lack of emotional clarity.

The Social Skills Improvement System (SSIS) Parent Rating Scale is a 79 item measure that assesses social skills, problem behaviors, and academic competence on a 4-point scale with responses for never, seldom, often, and almost always. Examples of items on this measure include "expresses feelings when wronged" and "acts without thinking" (Gresham & Elliott, 2008). The participant's parent completed the SSIS before the first session and after the last session.

The participant's parent also completed a brief demographic questionnaire before the first session of the intervention to assess the participant's age, gender, and race/ethnicity. Additionally, the participant's parents were provided with a consent form, and the participant was given verbal assent at the start of each intervention session.

The researchers created video models to demonstrate examples of inappropriate and appropriate responses to the different emotions discussed in each session. The models shown in the video were a nine-year-old male and a seven-year-old female since research shows that video models are most effective when the model is similar to the individual viewing the video (Cotter, 2010). Each emotion had two example scenarios. Each example scenario had two versions: an inappropriate emotional response to the situation and an appropriate emotional response to the situation. Written scripts of the video scenarios are provided in Appendix C.

Procedure

The current study utilized an A-B design with generalization probes before, during, and after intervention. Additionally, the SSIRS and the DERS were completed both pre-and post-intervention. The intervention itself was designed to take place over the course of seven sessions. Each session lasted about one hour, and the participant met with the researchers twice weekly. In general, each session began with 5-10 minutes of playtime to build rapport between Summer and the researchers conducting the sessions. After these first 5-10 minutes, the lesson topic was described, followed by several questions about that session's emotion. Then the video models were played and discussed with a conversation about what to do versus what not to do when feeling each emotion. Following was rehearsal done through stories, picture examples, role plays, and the generalization probe. Each session ended with an overview and answers to any

further questions before a quick wrap-up and more free play time between the participant and the researchers.

Session One: Overview

Upon arrival to the first session, the participant was introduced to the researcher and research assistants, was provided with verbal assent, and had an opportunity to introduce herself to the researchers. The researcher then gave an overview of the social skills program and the individual session. Following the introduction, the participant was given a pretest and an individualized generalization probe for each emotion that would be discussed throughout the intervention. Next, the participant was asked to define each emotion, describe how each can influence behavior, describe how each emotion can influence other's view about them and their behaviors, and identify each of the basic emotions: Happy/excited, sad, angry, and confused (a list of these questions is available in Appendix A). The session ended with generalization probes, a quick roleplay, and free play (see Appendix B for generalization probe descriptions).

Session Two: Happy/Excited

Upon arriving to the second session, the participant was greeted by the researcher and research assistants, was provided with verbal assent, and was allowed to play freely. Following an overview of the first session, the participant was given a brief discussion-based introduction to the emotions' happy and excited' (what does it feel like to be happy/excited? How do you know when others are happy/excited? What are appropriate ways to show happiness or excitement? What are inappropriate ways to show happiness or excitement?) and was shown two video models displaying inappropriate and appropriate ways to show the target emotion. The first video model showed reactions to getting a new toy the second video model showed reactions to another child who is not liked getting excluded from a friend's birthday party. After watching the

first inappropriate example of each situation, the participant was prompted to find what was inappropriate and asked to provide examples of how it could be handled differently before being shown the second appropriate example. The participant then participated in a role play. At the end, the participant could ask any questions, and a wrap-up was discussed before ending the session with generalization probes (see Appendix B for generalization probe descriptions).

Session Three: Sadness

Upon arriving to the third session, the participant was greeted by the researcher and research assistants and was provided with verbal assent before having an opportunity to free play. The session began with a review of the last session and clarifying any questions the participant had. Following the review, the participant was given a brief discussion-based introduction to the emotion 'sadness' (What does it feel like to be sad? How do you know when others are sad? What are appropriate ways to show sadness? What are inappropriate ways to show sadness?) and was shown two video models displaying inappropriate and appropriate ways to show the target emotion. The first video model showed reactions to their favorite toy being left at the park, and the second video model showed reactions to being called unkind names. After watching the first inappropriate example of each situation, the participant was prompted to find what was inappropriate and asked to provide examples of how it could be handled differently before being shown the second appropriate example. The participant then participated in a role play. At the end, the participant could ask any questions, and a wrap-up was discussed before ending the session with generalization probes (see Appendix B for generalization probe descriptions).

Session Four: Anger

Upon arriving to the fourth session, the participant was greeted by the researcher and research assistants and was provided with verbal assent before having an opportunity to free play. The session began with a review of the last session and clarifying any questions the participant had. Following the review, participants will be given a brief discussion-based introduction to the emotion 'anger' (what does it feel like to be angry? How do you know when others are angry? What are appropriate ways to show anger? What are inappropriate ways to show anger?) and was shown two video models displaying inappropriate and appropriate ways to show the target emotion. The first video model showed reactions to losing their ball during a game of catch, and the second video model showed reactions to only getting one cookie when their sibling got two. After watching the first inappropriate example of each situation, the participant was prompted to find what was inappropriate and asked to provide examples of how it could be handled differently before being shown the second appropriate example. The participant then participated in a role play. At the end, the participant could ask any questions, and a wrap-up was discussed before ending the session with generalization probes (see Appendix B for generalization probe descriptions).

Session Five: Confusion

Upon arriving to the fifth session, the participant was greeted by the researcher and research assistants, was provided with verbal assent, and was allowed to play freely. The session began with a review of the last session and clarifying any questions, participants had. Following the review, the participant was given a brief discussion-based introduction to the emotion 'confusion' (What does it feel like to be confused? How do you know when others are confused? What are appropriate ways to show confusion? What are inappropriate ways to show confusion?)

and was shown two video models displaying inappropriate and appropriate ways to show the target emotion. The first video model showed reactions to being ignored by their teacher, and the second video model showed reactions to feeling overstimulated in a public setting. After watching the first inappropriate example of each situation, the participant was prompted to find what was inappropriate and asked to provide examples of how it could be handled differently before being shown the second appropriate example. The participant then participated in a role play. At the end, the participant could ask any questions, and a wrap-up was discussed before ending the session with generalization probes (see Appendix B for generalization probe descriptions).

Session Six: Flexibility

Upon arriving to the sixth session, the participant was greeted by the researcher and research assistants and was provided with verbal assent before having an opportunity to free play. The session began with a review of the last session and clarifying any questions the participant had. Following the review, the participant was given a brief discussion-based introduction to the concept of 'flexibility' (What does it mean to be flexible? How do you know when others are being flexible? What is an appropriate way to be flexible? What is an inappropriate way to be flexible?). In this session, two of the research assistants acted out the social story. An inappropriate example of reacting to wanting a particular-colored marker was displayed. The participant was prompted to identify what was inappropriate and asked to provide examples of how it could be handled differently. An appropriate example followed this acted out between the two research assistants where there was a compromise of sharing the marker. The participant was then asked if this example was more appropriate and prompted to elaborate on why. A second situation was created, and the participant was asked to model a correct way to

handle the situation through role play. At the end, the participant could ask any questions, and a wrap-up was discussed before ending the session with generalization probes (see Appendix B for generalization probe descriptions).

Session Seven: Review

During the seventh session, the participant was greeted by the researcher and research assistants and was provided with verbal assent before having an opportunity to free play. The session began with a review of the last session and clarifying any questions the participant had. Following the review, a discussion of each emotion discussed throughout the treatment ensued, with the participant being prompted to answer all 20 questions they were asked in the first session (a list of these questions is available in Appendix A). The session continued with generalization probes and free play (see Appendix B for generalization probe descriptions).

Session Eight: Retraining with Rules and Direct Reinforcement

The generalization probes during the seventh session were not completed to the desired criterion level, and problem behaviors increased. Therefore, an eighth session was added to ensure stable responses to the generalization probes. This final session was similar to the seventh session and included a brief retraining with the video models. After the retraining the participant and the researchers created and wrote down rules together. Examples of rules included: No loud voices, ask for a break if you need one, don't hit, kick, or bang, and use kind words. An added contingency for desired responses to the generalization probes in the form of Pokémon cards and printed pictures of camels (which were chosen based on participant preferences) was introduced.

Results

DERS Pretest and Posttest Scores

The participant's parent completed the DERS to assess six forms of emotion regulation skills: nonacceptance of emotional responses, difficulty engaging in goal-directed behavior, impulse control difficulties, lack of emotional awareness, limited access to emotion regulation strategies, and lack of emotional clarity. The findings of this study indicated that scores on the DERS declined from pre-intervention to post-intervention, suggesting a decrease in problems with emotion regulation. Pre-intervention Summer's score on the DERS was 153, with a higher score suggesting greater problems with emotion regulation. Her overall score improved by 15 points from the pretest to the posttest, where she scored 138.

As far as the six subscales on the DERS, the nonacceptance of emotional responses subscale, which is the tendency to have an adverse secondary or non-accepting reaction to one's own distress; the difficulty engaging in goal-directed behavior subscale, which measures difficulty in concentrating and/or accomplishing tasks when experiencing negative emotions; and the impulse control difficulties subscale which measures difficulty remaining in control of one's behavior when experiencing negative emotions each improved 4 points respectively.

The lack of emotional awareness subscale, which reflects a lack of awareness or inattention to emotional responses, and the limited access to emotion regulation strategies subscale, which reflects the belief that there is little one can do to regulate oneself once upset, improved 3 points each.

The lack of emotional clarity subscale, which reflects the extent to which an individual knows and is clear about their emotions, went up one point, suggesting that the participant had a decreased knowledge and understanding of her emotions. It is likely, however, that this result

was seen due to the participant having more awareness of her emotions as she may struggle to accurately describe what she is experiencing. As seen in the participant's answers to the emotion recognition questions in Table 2, pre-intervention, she did not understand emotions at a level expected for her age. For a parent, likely, this diminished ability to describe her emotions would not be especially evident. Post-intervention, when she has greater awareness of these emotions, it is probable that being able to describe them clearly will be more complex, and a parent may take more notice of their child's struggle. Furthermore, this single-point increase on this one particular subscale may not be significant. Subscale scores are presented in Table 1. Results on this subscale is similar to what was found in Curtis (2022) and Perron (2022) studies.

SSIS Pretest and Posttest Scores

Problem behaviors measured in the SSISRS consisted of examining their interference with either the acquisition or the performance of social behaviors. On the problem behaviors scale in the SSIS, pre-intervention Summer scored in the 98th percentile and tested above average in externalizing, bullying, hyperactivity/inattention, and internalizing. Post-intervention on the problem behaviors subscales, Summer's score remained at the above-average behavior level for externalizing, bullying, hyperactivity, internalizing, and empathy, and her percentile rank increased to >99th. The participant scored at an above-average behavior level for all four subscales, both pre-and post-intervention.

Her scores on the Externalizing subscale and the Hyperactivity/Inattention subscales both improved by one point going from 23 to 24 and from 14 to 15, respectively. This suggests a slightly better ability to control one's temper with less argumentative and aggressive behaviors and slightly better focus with fewer excessive movements and impulsive reactions.

The Bullying subscale, which includes forcing others to do something, not letting others join an activity, and hurting people physically or emotionally, improved from a raw score of 5 to a raw score of 8.

The Internalizing subscale that measures feelings of anxiety, sadness, and loneliness and exhibiting poor self-esteem did not improve as scores on this measure decreased from a raw score of 15 to a raw score of 14. This perceived decrease in self-esteem and negative emotions surrounding it may be evident for similar reasons to the subscales that did not improve that have been mentioned above. As the participant becomes more aware of her emotions, and especially in this instance, more aware of others' emotions, she may become more self-conscious of her social skill abilities as she learns to navigate the regulation of her emotions in social settings more effectively. Whereas before, she was blissfully unaware of the effect of her actions on others, she may now be more keenly cognizant of others' feelings and feel self-conscious as she recognizes her own emotions and their effect on herself and others. Additionally, this decrease is only by one point and may not be significant. The results of the problem behaviors subscales are presented in Figure 2.

On the social skills section of the SSIS, Summer's scored in the 2nd percentile for her age and gender during pre-intervention. She scored below average on the communication, cooperation, assertion, responsibility, and self-control sections. She scored in the average range for the empathy and engagement sections.

Post-intervention on the SSIS, Summer moved up two percentiles to the 4th percentile for her age and gender on the social skills section. Her cooperation, assertion, responsibility, and self-control scores stayed below average. However, she made progress in increasing her self-control score, and her responsibility score increased by 2 points. Summer's score on the

communication subscale increased to the average level, and her empathy and engagement subscales scores remained in the average range. Scores on the Social Skills Subscales are displayed in Figure 1.

Pretest and Posttest Generalization Probes

Generalization probes were included in an attempt to ensure that the emotion regulation skills would be generalized to other settings and that the participant's responses were not simply scripted. No response to the generalization probe or engaging in problem behavior was scored a 0. Verbal statements that were not related to the scenario were scored a 1. Verbal statements that were related to the scenario were scored a 2. A statement displaying some type of emotional recognition was scored a 3. Finally, a reaction to the generalization probe that displayed emotion regulation skills or statements was scored a 4.

Each generalization probe was completed three times during the pre-intervention session, three times at the start of the respective session for that particular emotion, and three times during the post-intervention session. During the post-intervention session, the generalization probes were not done to mastery, and it was determined that retraining would be necessary and a contingency should be put in place. Thus, a second post-intervention session was added, and the generalization probes were completed again. During this second post-intervention session, rules were set, and a contingency was put in place before the participant's father was invited into the session in an effort to ensure the generalization of responses to the probes outside of responses to the researchers. Summer's responses to the generalization probes are presented in Table 3.

There is a positive trend in Summer's responses to all five of the generalization probes. The Happiness probe increased from a cumulative score of 5 pre-intervention to a cumulative score of 11 post-intervention. The Sadness generalization probe improved from a cumulative

score of 1 pre-intervention to 10 post-intervention. The Anger probe increased from a cumulative score of 1 at pre-intervention to 11 post-intervention. The cumulative confusion generalization probe score was a 0 pre-intervention and increased to a 10 post-intervention. Finally, the Flexibility generalization probe had a cumulative score of 0 pre-intervention and improved to a cumulative score of 11 when measured post-intervention.

While the analysis is qualitative, the positive trend in Summer's responses to all five generalization probes as the intervention progressed is evident. At baseline, Summer's total cumulative score for the probes was a 7. After the intervention her total cumulative score on the probes was a 27. After adding the contingency, Summer's total cumulative score for the generalization probes was 53.

Additionally, Summer's responses to the questions on emotion recognition that were asked at the start of each session became more sophisticated as the intervention progressed. Pre-intervention, her answers were mainly focused on actions and were related to animals. She also often responded that she did not know. Post-intervention, her answers were more accurate as they focused more on feelings and emotions, and she was more confident in her responses. The participant's answers to these questions are presented in Table 2.

Discussion

This study was designed to examine the effects of a behavioral skills training program package on the emotional regulation skills of a child diagnosed with ASD. In general, the results of this study suggest a possible increase in emotion regulation skills through BST and VM, which is consistent with the results found by Curtis (2022) and Pearron (2022).

Furthermore, the results add to previous research which suggests the utility of BST for individuals diagnosed with ASD (Aguirre et al., 2014; Garcia et al., 2016; Johnson et al., 2006;

Kos, 2019; Nuernberger et al., 2013; Sump et al., 2018). The literature mentioned above all found success in using BST to teach skills to individuals diagnosed with ASD using a BST procedure. The current study extends these results and adds to the growing body of evidence suggesting the efficacy of using BST to teach skills to individuals diagnosed with ASD. Additionally, prior research has suggested that VM, which relies heavily on visual observations, might be a type of instruction that is best suited to meet the particular needs of children with ASD, who generally respond best to visual stimuli (Adjorlu et al., 2017; Cotter, 2010; Lee et al., 2022). The results of the current study extend these findings as it too found success using VM as part of the BST intervention suggesting that VM may be a type of visual stimuli that individuals diagnosed with ASD are particularly suited for.

Additionally, these results are similar to other BST data regarding adding a contingency for positive reinforcement of appropriate behavior. Previous research has garnered results by adding praise (Garcia et at., 2016) and reinforcer delivery, such as access to a preferred item or activity to BST. Additionally, Aguirre et al. (2014) outlined in their 6th step of BST to deliver a consequence in the form of social praise and/or more contrived reinforcement, like the use of tokens in exchange for preferred items or activities as was done in the current study, when the participant engages in the target behavior. The participant's responses to the generalization probes improved substantially after adding a contingency in the form of tally marks which were exchanged for reinforcers that were preferred by the participant, particularly pictures of camels and Pokémon cards.

Limitations and Future Research

The present study had many limitations. Foremost, the intervention was initially designed to be a social skills group intervention. Difficulties with recruiting resulted in the researchers

switching to a single case design pilot study of the intervention procedure. The unexpected outcome of implementing the study with just one participant led to many more design flaws than the researchers initially expected. Future research should be conducted with more participants. Furthermore, the nature of single case design studies makes it impossible to generalize the intervention's results across participants. A group intervention design, as was initially planned for this study, may also allow for a better determination of generalization across participants. Generalization probes were included in the study design to determine if generalization of emotion regulation skills may be possible. However, these generalization probes should have been completed again without a positive reinforcer and the rules in place and should have been continued at least 2-3 more times until responding was stable and the participant was able to complete the probes to mastery. Additionally, the probes were conducted in a research lab; thus, results do not necessarily relate to a home, school, or community setting. Future research should ensure that these probes are completed to mastery to determine the impact of the intervention procedure more accurately.

Another limitation of the study was the impact of familiarity. The participant became familiar with the program and asked if the videos were "real." As the intervention sessions continued, she began asserting that the children in the videos were acting and that it was a pretend situation that "did not really happen." An even more challenging impact of familiarity was the participant's familiarity with the researchers as the sessions progressed. As rapport was built, the participant's displays of problem behaviors became increasingly evident in the sessions.

Part of the inclusion criteria for participating in the study was following two- to three-step directions without displaying a high rate of noncompliance or high-intensity behaviors. As the intervention progressed, it became evident that Summer displayed such behaviors that the

researchers noted in the intervention sessions, and her parents noted they often experienced at home. These behaviors included noncompliance in the form of protests, arguing, and perpetual compromise; negative self-talk and negative statements towards others; aggression, including throwing, banging, yelling, and hitting; and difficulty transitioning from preferred to unpreferred tasks including in preferred topics of conversation. As the participant became increasingly comfortable interacting with the researchers, her veil of respect and obedience began to fade, and her displays of these maladaptive behaviors were revealed. While this was suitable for treatment, it made the experimental research side of the intervention more complex as displays of inappropriate behaviors increased rather than decreased throughout the intervention.

Finally, due to issues with recruitment, canceled sessions due to inclement weather, and the added retraining and generalization probe session with the contingency in place, there was no follow-up session included as part of the study. Without a follow-up session, maintenance cannot be assessed. Therefore, it is unclear if the positive trend in emotion regulation skills will be maintained over time. Future research should include follow-up sessions to determine if the results are sustained.

References

Aguirre, A., O'Neill, J., Rehfeldt, R. A., & Boyer, V. (2014). Behavioral interventions for

complex communication and social skills in adults with autism spectrum disorders. In

Tincani & Bondy (Eds.), *Autism spectrum disorders in adolescents and adults: Evidence-*

based and promising interventions (pp.139-177). New York: Guilford Publications, Inc.

Adjorlu, A., Hoeg, E. R., Mangano, L., & Serafin, S. (2017). Daily living skills training in virtual

reality to help children with autism spectrum disorder in a real shopping scenario. *2017*

IEEE International Symposium on Mixed and Augmented Reality (ISMAR-Adjunct).

https://doi.org/10.1109/ismar-adjunct.2017.93

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental*

disorders (5th ed.). https://doi.org/10.1176/appi.books.9780890425596

American Psychiatric Association. (2021, August). What Is Autism Spectrum

Disorder? American Psychiatric Association. Retrieved January 15, 2022, from

https://www.psychiatry.org/patients-families/autism/what-is-autism-spectrum-disorder

American Psychological Association. (2021). *Apa Dictionary of Psychology*. American

Psychological Association. Retrieved January 15, 2023, from https://dictionary.apa.org/

Bohlander, A. J., Orlich, F., & Varley, C. K. (2012). Social skills training for children with

autism. *Pediatric Clinics of North America*, *59*(1), 165–174.

https://doi.org/10.1016/j.pcl.2011.10.001

Cotter, C. (2010). *Evaluating the effects if camera perspective in video modeling for children*

with autism: Point of view versus scene modeling (dissertation).

Curtis, D. (2022). Examining the effects of an online social skills program targeting emotional

regulation skills for a young adult with an autism spectrum disorder: A single case study

[Master's thesis, Minnesota State University, Mankato]. Cornerstone: A Collection of

Scholarly and Creative Works for Minnesota State University, Mankato.

https://cornerstone.lib.mnsu.edu/etds/1196/

Garcia, D., Dukes, C., Brady, M. P., Scott, J., & Wilson, C. L. (2016). Using modeling and

rehearsal to teach fire safety to children with autism. *Journal of Applied Behavior Analysis*,

49(3), 699–704. https://doi.org/10.1002/jaba.331

Geller, L. (2005). Emotional regulation and autism spectrum disorders. *Asperger Center for

Education and Training*.

Hall, L. J., Leinert, S., & Jacquez, J. (2018). A review of social skills manuals for adolescents

with autism spectrum disorder. Current Developmental Disorders Reports, 5(1), 77–88.

https://doi.org/10.1007/s40474-018-0134-5

Hassan, M., Simpson, A., Danaher, K., Haesen, J., Makela, T., & Thomson, K. (2018). An

evaluation of behavioral skills training for teaching caregivers how to support Social Skill

Development in their child with autism spectrum disorder. *Journal of Autism and

Developmental Disorders*, *48*(6), 1957–1970. https://doi.org/10.1007/s10803-017-3455-z

Johnson, B. M., Miltenberger, R. G., Knudson, P., Egemo-Helm, K., Kelso, P., Jostad, C., &

Langley, L. (2006). A preliminary evaluation of two behavioral skills training procedures

for teaching abduction-prevention skills to schoolchildren. *Journal of Applied Behavior

Analysis*, *39*(1), 25–34. https://doi.org/10.1901/jaba.2006.167-04

Kelly, J. A., Wildman, B. G., & Berler, E. S. (1980). Small group behavioral training to improve

the job interview skills repertoire of mildly retarded adolescents. *Journal of Applied

Behavior Analysis*, *13*(3), 461–471. https://doi.org/10.1901/jaba.1980.13-461

Kos, G. (2019). Using behavioral skills training to teach children with autism to seek help from

law enforcement officers when lost [Master's thesis, Minnesota State University, Mankato]. Cornerstone: A Collection of Scholarly and Creative Works for Minnesota State University, Mankato. https://cornerstone.lib.mnsu.edu/etds/932/

Lee, G. T., Li, H., & Xu, S. (2022). Comparing video modeling and picture-based interventions for teaching emotions in context to children with autism spectrum disorder. *Journal of Developmental and Physical Disabilities*, *35*(1), 145–165. https://doi.org/10.1007/s10882-022-09849-6

Miltenberger, R. G., Flessner, C., Gatheridge, B., Johnson, B., Satterlund, M., & Egemo, K. (2004). Evaluation of behavioral skills training to prevent gun play in children. Journal of Applied Behavior Analysis, 37(4), 513–516. https://doi.org/10.1901/jaba.2004.37-513

Miltenberger, R. G. (2008). Teaching safety skills to children: Prevention of firearm injury as an exemplar of best practice in assessment, training, and generalization of safety skills. *Behavior Analysis in Practice*, *1*(1) 30-36.

Miltenberger, R. G., Valbuena, D., & Sanchez, S. (2021). Applied Behavior Analysis. *Handbook of Cognitive Behavioral Therapy: Overview and Approaches (Vol. 1).*, 637–671. https://doi.org/10.1037/0000218-022

Murry, F. (2018). Using assistive technology to generate social skills use for students with emotional behavior disorders. *Rural Special Education Quarterly*, *37*(4), 235–244. https://doi.org/10.1177/8756870518801367

Nuernberger, J. E., Ringdahl, J. E., Vargo, K. K., Crumpecker, A. C., & Gunnarsson, K. F. (2013). Using a behavioral skills training package to teach conversation skills to young adults with autism spectrum disorders. *Research in Autism Spectrum Disorders*, *7*(2), 411–417. https://doi.org/10.1016/j.rasd.2012.09.004

Perron, B. (2022). Examining the effects of an online group social skills program on emotion

    regulation skills for adolescents and young adults with an autism spectrum disorder

    [Master's thesis, Minnesota State University, Mankato]. Cornerstone: A Collection of

    Scholarly and Creative Works for Minnesota State University, Mankato.

    https://cornerstone.lib.mnsu.edu/etds/1248/

Preas, E. J., & Mathews, T. L. (2021). Evaluation of caregiver training procedures to teach

    activities of daily living skills. *Behavior Analysis in Practice*, *14*(4), 958–973.

    https://doi.org/10.1007/s40617-020-00513-z

Rosales, R., Stone, K., & Rehfeldt, R. A. (2009). The effects of behavioral skills training on

    implementation of the Picture Exchange Communication System. *Journal of Applied*

    Behavior Analysis, *42*(3), 541–549. https://doi.org/10.1901/jaba.2009.42-541

Scarpa, A., & Reyes, N. M. (2011). Improving emotion regulation with CBT in young children

    with high functioning autism spectrum disorders: A pilot study. *Behavioural and Cognitive*

    Psychotherapy, *39*(4), 495–500. https://doi.org/10.1017/s1352465811000063

Sump, L. A., Mottau, B. C., & LeBlanc, L. A. (2018). Evaluating behavioral skills training to

    teach basic computer skills to a young adult with autism. *Behavior Analysis in Practice*,

    12(2), 331–334. https://doi.org/10.1007/s40617-018-00295-5

United States. Public Health Service. Office of the Surgeon General. (1999). Mental health: A

    report of the surgeon general. U.S. Department of Health and Human Services, Public

    Health Service, Office of the Surgeon General https://doi.org/10.1037/e636982009-001

US Department of Education. (2013, February). *Social Skills Training*. Institute of Education of

    Sciences. Retrieved January 15, 2022, from

    https://ies.ed.gov/ncee/wwc/Docs/InterventionReports/wwc_socialskills_020513.pdf

Weaver, L. L. (2015). Effectiveness of work, activities of daily living, education, and sleep

    interventions for people with autism spectrum disorder: A systematic review. *The*

    American Journal of Occupational Therapy, *69*(5).

    https://doi.org/10.5014/ajot.2015.017962

What Works Clearinghouse (2013). *Early Childhood Education Interventions for Children with*

    Disabilities: Social Skills Training. U.S. Department of Education, Institute of Education

    Sciences, National Center for Education Evaluation and Regional Assistance.

Appendix A

What does it feel like to be happy/ excited?
How do you know when others are happy or excited?
What are appropriate ways to show happiness or excitement?
What are inappropriate ways to show happiness or excitement?

What does it feel like to be sad?
How do you know when others are sad?
What are appropriate ways to show sadness?
What are inappropriate ways to show sadness?

What does it feel like to be angry?
How do you know when others are angry?
What are appropriate ways to show anger?
What are inappropriate ways to show anger?

What does it fell like to be Confused?
How do you know when others are confused?
What are appropriate ways to show confusion?
What are inappropriate ways to show confusion?

What does it mean to be flexible?
How do you know when others are being flexible?
What is an appropriate way to be flexible?
What is an inappropriate ways to be flexible?

Appendix B

Generalization Probes:

- Happy/ excited
    - We get to do their favorite activity.
    - Let her go back to playing how she wants.
- Sadness
    - We throw the ball away from them in the middle of the game.
    - Their favorite RA says they do not want to play and leaves the room.
- Anger
    - We take their favorite toy away from them.
    - Dad tells her no or skips her turn in a game we are playing.
- Confusion/ complexity of emotions and how to ask for help.
    - Ask them to do a math problem above their level/ ability.
    - RA and Dad engage in a conversation ignoring them.
- Flexibility
    - Taking turns.
    - Ask what they want to play. RA says they want to play something different. Dad, and other RAs agree.

Appendix C

Written Scripts of Video Scenarios

Happiness Example 1:

Inappropriate:
1: (Is playing with a Rubik's cube).
2: I like your Rubik's cube.
1: Thanks, my mom got it for me today!
2: I used to have a Rubik's cube, but mine broke.
1: I am so happy that mine did not break because now I have something to play with and you don't.

Appropriate:
1: (Is playing with a Rubik's cube).
2: I like your Rubik's cube.
1: Thanks, my mom got it for me today!
2: I used to have a Rubik's cube, but mine broke.
1: Oh. Well, I really like playing with mine. Do you want to have a turn?
2: Sure!

Happiness Example 2:

Inappropriate:
1: I am so sad. Nikki did not invite me to her birthday party.
2: HAHA! Good! You are too loud and annoying. I am happy you are not invited.

Appropriate:
1: I am so sad. Nikki did not invite me to her birthday party.
2:Awe, I'm sorry. Being left out is not very fun.

Sadness Example 1:

Inappropriate:
2: Hey, where did my toy go?
1: Oh no. I think we left it at the park.
2: You stupid head! Why did you leave it at the park? Now it's gone forever and it's all your fault. I hate you!

Appropriate:
2: Hey, where did my toy go?
1: I think we left it at the park.
2: Oh no! That was my favorite toy.
1: Let's go ask my mom if she can take us back to the park so we can look for it together.

2: Okay!

Sadness Example 2:

Inappropriate:
1: You are stupid!
2: No, you are stupid and a loser!

Appropriate:
1: You are stupid!
2: Hey that's not very nice. I'd rather you didn't call me that.

Anger Example 1:

Inappropriate:
1: hey do you want to play catch?
2: Sure! (does not catch ball and it rolls away).
1: What is your problem!? Why would you do that!? Do you even know how to play catch? I am never playing with you again.

Appropriate:
1: hey do you want to play catch?
2: Sure! (does not catch ball and it rolls away).
1: Oh no! The ball is rolling away. Let's go get it.

Anger Example 2:

Inappropriate:
1: Hey, look! Mom gave me two cookies!
2: What the heck. That's not fair! I am older and better than you so I deserve more!

Appropriate:
1: Hey, look! Mom gave me two cookies!
2: Hey, that's so cool! I only got one so I'm going to go ask her if I can have another.

Confusion Example 1:

Inappropriate:
1: Mr. Bobby! Mr. Bobby! Mr. Bobby!
2: (teacher ignores student).
1: (yelling) Mr. Bobby! I am trying to talk to you!
2: (teacher continues ignoring student)
1: (yelling) You are the worst teacher ever!

Appropriate:

      1: Mr. Bobby! Mr. Bobby! Mr. Bobby!
      2: (teacher ignores student).
      1: Mr. Bobby!
      2: (teacher continues ignoring student)
      1: (Raises hand and waits patiently)
      2: Yes, Dave?
      1: I would like to talk to you, and I am confused with why you are not answering me.
      2: Well, Dave. It is important to follow the classroom rules. Now that you are sitting down and raising your hand, I am happy to talk to you and answer your question.

Confusion Example 2:

Inappropriate:

      1: Okay Bobby, we have to drop your sister off at ballet.
      2: (Starts throwing tantrum, screaming, hitting, and crying) I want to go home, now!

Appropriate:

      1: Okay Bobby, we have to drop your sister off at ballet.
      2: I want to take a break outside first

Table 1

Difficulties in Emotion Regulation Scale Scores

	Pre-intervention Score	Post-intervention Score
Total	153	138
Nonacceptance of emotional responses	28	24
Difficulty engaging in goal-directed behavior	25	21
Impulse control difficulties	30	26
Lack of emotional awareness	20	19
Limited access to emotion regulation strategies	35	32
Lack of emotional clarity	15	16

Table 2

Emotion Recognition Question Responses

Questions	Pre-Intervention Answers	Intervention Session Answers	Post-Intervention Answers
What does it feel like to be happy/excited?	"The dog playing with me."	"Hugging a dog."	Gestures excited, "Their face looks happy and smiling."
How do you know when others are happy/ excited?	"No idea."	"When they are hugging a pet and their face looks happy."	"If they're excited, they might look surprised."
What are appropriate ways to show happiness or excitement?	"Petting a dog."	"Petting pets or petting an imaginary pet."	"Laugh or smile."
What are inappropriate ways to show happiness or excitement?	"No idea."	"When someone kicks someone."	Banging on table, "Saying I'm so excited I'm going to die."
What does it feel like to be sad?	"No idea."	"Face looks sad, crying sad tears, disappointed, overwhelmed."	"Crying or loosing something."
How do you know when others are sad?	"Look at their face, it looks sad"	"They are crying sad tears and their face looks disappointed."	"When they lose something, and they are not smiling, or they are pouting."
What are appropriate ways to show sadness?	"Pet pets to feel better."	"Tell [research assistant]."	"Walking away."
What are inappropriate ways to show sadness?	"Hurt pets. Once I said I would kill my dog if they didn't find it, but I didn't mean it."	"Hurt someone."	"Running away or banging."
What does it feel like to be angry?	"When the dog bites."	"You're mad. When the dog bites me, he's angry."	"Pounding on stuff."
How do you know when others are angry?	"No idea. Maybe when Mom says 'Dad, you	"When a goat is mad, he rams someone. A person might run into a	"They are not being appropriate or are stomping their feet."

	need to do the laundry?'"	goat or stomp their feet."	
What are appropriate ways to show anger?	"Move away."	"Tell pets to lick me or look at a picture of my dog to make me feel happy."	"Walk away. You could use or make a break card, or you could tell someone."
What are inappropriate ways to show anger?	"Kick anything besides the wall. You can kick a beanbag."	"Kicking."	"Throwing stuff."
What does it feel like to be confused?	"When I have no idea what it means like new math problems."	"Weird and awkward."	"You might say 'I have no idea,' or 'what the heck!'"
How do you know when others are confused?	"Their face looks confused. Like sad and angry at the same time."	"Their face wouldn't look happy."	"They will be losing interest."
What are appropriate ways to show confusion?	"There's nothing you can do to not be confused."	"Raising your hand."	"Ask a teacher and tell them I don't really get it."
What are inappropriate ways to show confusion?	"Yelling."	"Yelling or losing sight of what matters."	"Hurt a teacher or throw things."
What does it mean to be flexible?		"I don't know. Being calm?"	"Being calm and compromising."
How do you know when others are being flexible?		"They look calm."	"Being calm and taking turns."
What is an appropriate way to be flexible?		"Being calm or petting an imaginary camel."	"Taking turns and compromising."
What is an inappropriate way to be flexible?		"Breaking a toy or ripping homework."	"Yelling or hitting."

Table 3

Generalization Probe Responses

Probe	Baseline	Intervention	Post-Intervention 1	Post-Intervention 2
Happy/ Excited:	No reaction.	No reaction.	No reaction.	"let's play…"
Letting her play how or what she wants.	"I want to play…"	"I'm excited."	"Can you play with your orbee? It makes me feel happy."	"Whatever you're cool with."
	"Okay."	"It makes me feel happy to play with my calico critters."	"[Research Assistant], can you take out your marker?"	"Who wants to go first?"
Sadness:	Starring.	"[Research Assistant!]"	Engaged in tantrum behaviors.	*"Dad!"*
Ignoring and excluding from conversation.	Changes subject.	Talks over.	"I should yell at them because they are getting off topic" – 'No.' (prompted) "I should say excuse me."	"[Research Assistant!], [Research Assistant!]"
	Talks over.	Starred aggressively.	"I want to play Bingo because you are not any fun!"	"Excuse me, you guys were talking." – *'Oh sorry,'* "It's okay."
Anger:	Starred.	Yelled.	"Put it back!"	"Hey, you went twice…"
Skipping turn.	"Hey!"	Tried to change rules.	"Stop, you're not taking turns!"	"Did you think it was your turn? You can still go."
	"No!"	Used break card appropriately.	"[Research Assistant], you have to go after me."	"[Research Assistant], I think it was [other Research Assistant's] turn."
Confusion:	Refused help.	"We didn't learn it that way in school."	"[Research Assistant], I don't need your help!"	"This is super-duper hard."

|				
Presented with task too difficult to complete.				
	Starred.	"Let's just do something different."	"This is tricky."	"I don't think I get it."
	"No, that's not the way you do it!"	"Is it okay to ask for help? What if people laugh at me?"	"What did I do wrong?"	Accepted help.
Flexibility: *Researchers want to play something else*	"NO!"	did you mean to do that? It's okay."	"That's not the way you play!"	"I want to play BINGO because I don't have it at home, and you bought Jenga so you can play with it later."
	"No, you can't!"	"Can we play my game after yours?"	"No, you can't start over!" – 'I'm going to.' "Okay."	"Okay we can play your game first."
	Engaged in tantrum behaviors.	"If he wants to, he can sit."	"Can I just show you how and then you can go first?"	"Okay, I guess we can play that way."

Figure 1

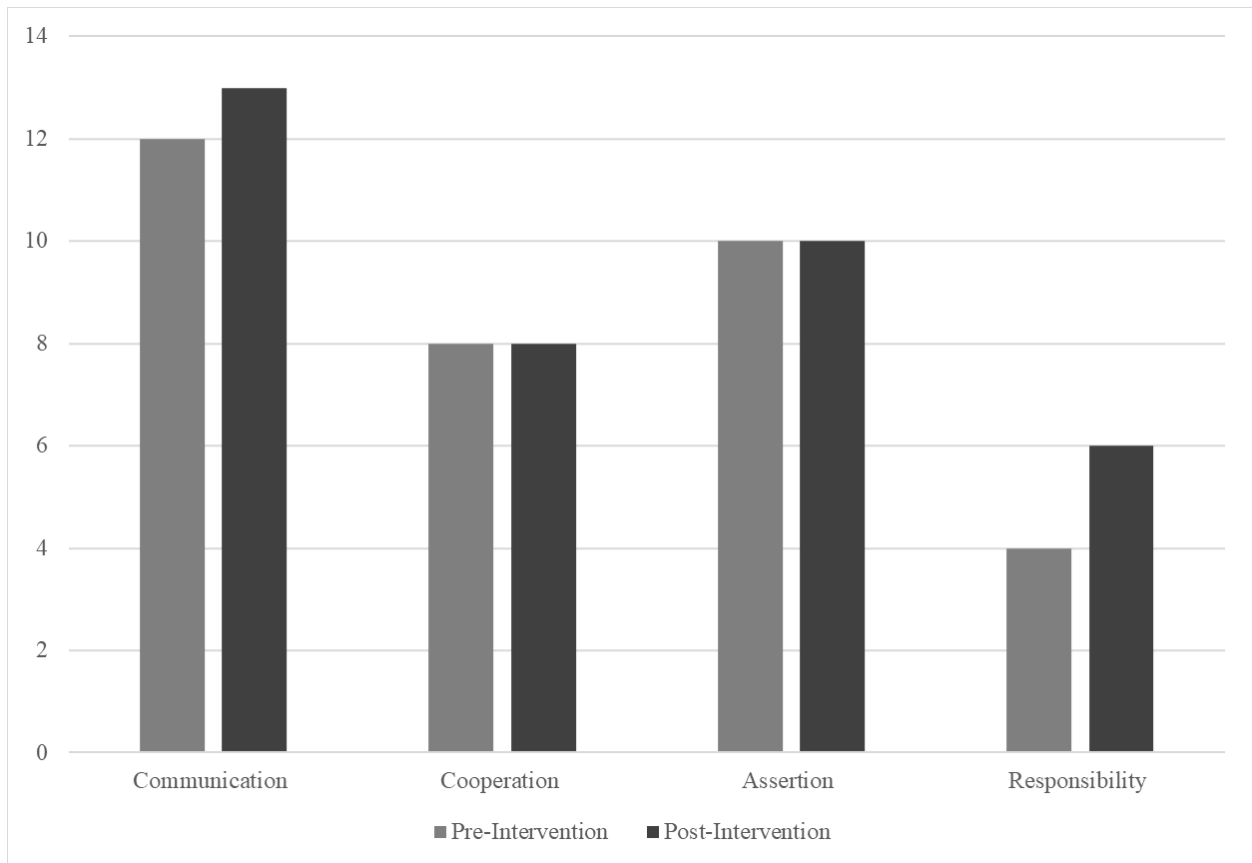*Social Skills Improvement System Social Skills Subscale Scores*
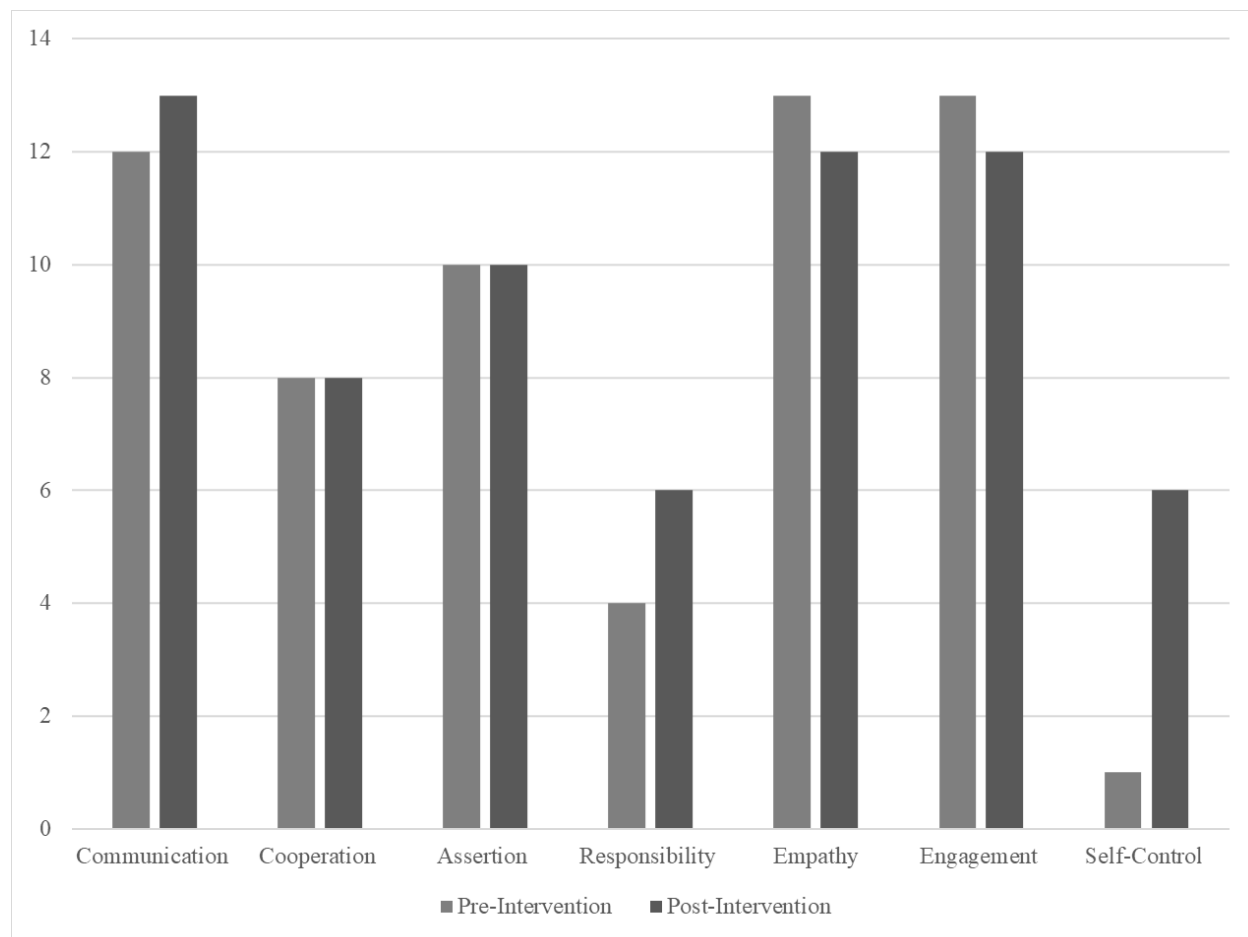
Figure 2

Social Skills Improvement System Problem Behaviors Subscale Scores

Figure 3

Generalization Probes Across Intervention Sessions