

SOCIAL SKILLS INTERVENTIONS FOR CHILDREN WITH AUTISM SPECTRUM DISORDER

Gül KAHVECI

European University of Lefke, Faculty of Education, Department of Special Education Teaching, Lefke,
Northern Cyprus, TR-10, Mersin, Turkey

Orcid: <https://orcid.org/0000-0002-1300-7397>

gkahveci@eul.edu.tr

Received: March 04, 2022

Accepted: May 12, 2022

Published: June 30, 2022

Suggested Citation:

Kahveci, G. (2022). Social skills interventions for children with autism spectrum disorder. *International Journal of Su-Ay Development Association (IJOSDA)*, 1(1), 33-40.



Copyright © 2022 by author(s). This is an open access article under the [CC BY 4.0 license](https://creativecommons.org/licenses/by/4.0/).

Abstract

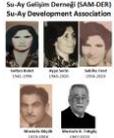
Deficits in pretend play, perspective taking, initiating and responding to others, as well as other severe social impairments, are characteristics of autism spectrum disorder (ASD). There is an increasing need for social skills development-focused therapy as the number of children diagnosed with autism rises. Social skills therapies have advanced over the years, combining video technology and naturalistic training methods. It has been demonstrated that many of these studies generalize to different contexts, participants, and people who were not directly participated in the study. Although the small sample sizes make extrapolating the results to the entire population somewhat challenging, ongoing replication of these research and the creation of more complex social skills interventions may result in a more expansive interpretation and application. The critical research on social skill treatments is reviewed in this article.

Keywords: Social skills interventions, Children, Autism spectrum disorder.

INTRODUCTION

One of the characteristics of autism is severe difficulty in social interaction. Social communication impairment is a hallmark feature of ASD (American Psychiatric Association 2013). Social communication involves a wide range of actions, and social communication deficiencies can manifest in many different ways (Craig, Crippa, Ruggiero, Rizzato, Russo, Fanizza, & Trabacca, 2021). Social impairments might be seen, for instance, in the inability to start conversations or to converse about a wide range of subjects other than those related to one's special interests. (2013) American Psychiatric Association Traditional, in-person intervention services focus on early language skills, socialization-supporting communication skills (such as imitation), conversational functions (such as vocabulary comprehension and production), communication functions (such as requests), and conversational repair (Simacek, Elmquist, Dimian, & Reichle, 2021).

Teaching social skills is one of the most often used methods for improving social functioning in people with ASD (SST; Goin-Kochel et al. 2007). According to Bellini and Peters (2008), p. 858, SST is “instruction aimed to promote or facilitate the acquisition or performance of social skills” and includes a wide range of techniques, such as behavioral skills training and video modeling (e.g., Alhuzimi, 2022). The provision of SST earlier in life should be taken into consideration, as it may prevent or lessen social impairment. SST has generally been shown to be effective in promoting social functioning for people with ASD (Hotton and Coles 2016). However, given the persistence of social deficits throughout the lifetime (American Psychological Association 2013). One of the most important areas of human growth is social development. Lack of social skills can have a detrimental effect on a number of important areas, such as academic performance, interpersonal interactions, behavior, mental health, and adult life outcomes. Social skills are a basic deficiency for those with autism. Children with autism frequently fail to develop social skills and may encounter difficulties in the classroom, at home, and in the community if there are no supports and no effective therapies to improve these abilities. Children with autism can acquire crucial social skills through successful



therapies that can reduce deficits and improve social competence (Zerk, Zerk, & Silveira-Zaldivar, 2021).

However, a lot of early intervention programs still only concentrate on educating preacademic abilities that get these youngsters ready academically for normal education classrooms. Even while these interventions might decrease the academic difference, leaving out social skills interventions will probably cause the social gap to increase. Nevertheless, throughout the preschool years, it is equally crucial to focus on social skills, communication, challenging behavior, joint attention, play, school readiness, pre-academic, motor, and adaptive behaviors (Dynia, Walton, Brock, & Tiede, 2020). Teachers frequently place more emphasis on reducing behavior than on picking out behaviors to accelerate (Howell, 1985).

According to some experts, social skills can be learnt, and with the right instruction and opportunity to practice them over time, there may be an increase in interactions (e.g., Gonzalez-Lopez & Kamps, 1997). Early social skills interventions focused on basic, prerequisite behaviors like looking someone in the eye and orienting toward them (Lovaas, 1977). However, social skills interventions have evolved over the past few years to include play, perspective-taking, and conversational abilities. Additionally, some of these interventions have utilized naturalistic techniques, music, and video technology, such as Alhuzimi, T. (2022), Schwartzberg, & Silverman (2013), and (e.g., Pierce & Schreibman, 1997). Others have demonstrated the ability to generalize across contexts (e.g., Koegel, Koegel, Hurley, & Frea, 1992) or with others who were not enrolled in the studies (Pierce & Schreibman, 1997), as well as boosting the independence and self-reliance of autistic children (e.g., Apple, Billingsley, & Schwartz, 2005). In the future, as social skills intervention research develops, it might be able to extrapolate findings to a larger audience.

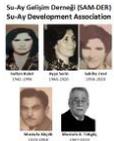
The following assessment of studies on social skills contain brief information, a list of pertinent references, and a variety of interventions that have been created over time. Video modeling, priming, self-management, written scripts, Social Stories, and pivotal response training are some of the interventions that are most frequently employed.

Brief Research Review

Video Modeling

With the intention of eventually imitating the actions shown in the movies, video modeling often involves participants seeing videotaped demonstrations of skills being accomplished. According to Taylor, Levin, and Jasper (1999), this method has been effective in teaching children with autism a number of social skills, such as play, social initiations, and perspective-taking (Charlop-Christy & Daneshvar, 2003). When used to teach conversational communication, greetings, self-help skills, and play, video modeling has been demonstrated to be more successful than *in vivo* modeling for improving skill acquisition with generalization across people, locations, and stimuli (Charlop-Christy, Le, & Freeman, 2000). However, creating videos frequently takes a lot of time.

Video modeling was most helpful in several of these studies when used in conjunction with additional interventions including adult prompts, concrete reinforcement, practice, peer training, and so forth. For instance, Taylor et al. (1999) increased play-related statements made to their siblings at home by using video modeling with two autistic children. A sibling and an adult were seen playing with toys and uttering pre-written remarks (such as, "These hot dogs are wonderful!"). After watching the movie, practice sessions were held between each participant and an adult, and play-related remarks were given concrete support. After watching the movie and getting some practice in, the two kids' playing was observed during probe sessions. A multiple baseline approach was used to evaluate play-related remarks across three activities. Scripted remarks significantly enhanced the experience for both participants. However, it wasn't until a forward chain procedure was added that longer, unscripted comments started to appear.



The capacity to consider another person's perspective is a crucial social skill that can be improved through video modeling. For instance, perspective-taking exercises comparable to the well-known "Sally-Anne" tasks described by Baron-Cohen, Leslie, and Frith were taught by Charlop-Christy and Daneshvar in 2003. (1985). The study had three males as participants. A presentation that featured two puppets, an observer, and a video was created. One of the puppets was seen by the witness hiding something beneath a dish before leaving the action. The second puppet removed the item from beneath the bowl and put it beneath a box. The observer was questioned about the location of the puppet's search for the item when the first puppet returned. The observer had to respond, "Under the bowl," in order to pass this task and prove their capacity for perspective-taking.

Perspective-taking ability was assessed using a multiple baseline design across two tasks that were comparable to the video presentation, with rewards offered for accurate responses. All three participants picked up the proper way to carry out the activities. Only two participants, nevertheless, were able to transfer these abilities to new activities.

In another usage of this technique, D'Ateno, Mangiapanello, and Taylor (2003) taught a 3-year-old female to engage in pretend play activities through video modeling without adult urging, reinforcement, or reprimand. Three quick films with an adult chatting to a doll while having a tea party, shopping, and baking were produced. Each film was watched by the participant at least one hour before she received the items to play with. A multiple baseline approach was used to assess scripted verbal and motor responses during various activities. The participant picked up the majority of the reactions exhibited in the film. However, throughout the investigation, there was minimal novel responding.

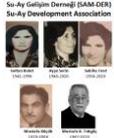
Investigations have also looked into the efficacy of video modeling with a "self" model rather than a "peer" model. To improve conversational skills, Sherer et al. (2001) compared five autistic youngsters who acted as their own video models with classmates who were also used as models. To measure behavior change, a mixed multiple baseline and alternating treatments approach was used. It was determined that both techniques were equally efficient. As a result, utilizing a peer as a model could be preferable to using an autistic youngster who might not collaborate as readily with task demands, lengthening the production time and complexity of the videotapes (Sherer et al.2001).

Self-Management

Self-management has a strong track record of success in teaching skills to a number of populations, including those with autism, and has been shown to be an effective treatment for fostering independence and reducing reliance on adult supervision (e.g., Koegel & Koegel, 1990). Individuals are often required to self-monitor, self-reinforce, and document their own conduct using a wrist counter, checklist, or tokens. The correct performance is subsequently given tangible reward. Inappropriate vocalizations have been reduced with the help of self-management (Mancina, Tankersley, Kamps, Kravits, & Parrett, 2000), daily living skills have been taught (Pierce & Schreibman, 1994), play has been improved (Stahmer & Schreibman, 1992), and generalization across settings has been encouraged (Koegel et al., 1992; Newman et al., 1995).

Using video modeling both with and without a self-management component, Apple et al. (2005) looked at how it affected the compliment-giving initiations and reactions of two autistic boys toward their classmates. In the films, peers modeled play while adults narrated the "rules" of the game. Through a multiple baseline approach, participant behaviors were assessed.

Although the videos clearly outlined the guidelines for initiating and reacting to praises, only compliment-giving reactions (such as "Oh yeah!") rose when using video modeling alone. However, when a self-management and reinforcement component was included to the treatment, the number of compliment-giving initiations (such as "Neat airplane!") increased. Each time they started a compliment, participants had to count on a wrist counter or checklist. With the implementation of the



self-management process, immediate and independent compliment-giving initiations were seen for all participants, necessitating no need for adult supervision.

Morrison, Kamps, Garcia, and Parker (2001) compared a self-monitoring technique with peer monitoring to teach social interaction skills (such as asking for something, making a comment, or sharing) to four children with autism spectrum disorders while they were playing games. Each time they engaged in a goal behavior, participants had to enter it on a checklist as part of the self-monitoring technique. Every time a student made a request and noted it on the monitoring sheet, an adult was there to offer support. In contrast, during the peer-monitoring phase, peers were in charge of observing participant behavior and giving them a reinforcer. A multiple baseline design across skills and counterbalanced alternating treatments were used to examine behavior change. The promotion of social behaviors was found to be equally beneficial with both interventions. Peers were seen to initiate autistic children slightly more frequently during the peer-monitoring period, nevertheless.

Priming

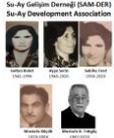
Priming is an antecedent manipulation that takes place right before an activity, is low demand and typically involves skills that the child already knows how to do. It is also highly reinforcing since it gives the child access to favored things or activities. This tactic aims to prepare the youngster for an impending event by exposing them to it previously, making it more predictable (Schreibman, Whalen, & Stahmer, 2000). This can entail giving kids practice before a particular activity to educate them how to begin and respond to one another. For instance, Zanolli, Daggett, and Adams (1996) employed a priming method to encourage two preschoolers with autism to initiate spontaneous interactions with their usual peers. Target students were taught to initiate to peers and peers were trained to respond to those initiations and offer reinforcers during priming sessions, which were conducted right before 5-min activity sessions. Following priming, the teacher told the kids to "Greet each other and play" before the activity periods started.

A multiple baseline approach was used to assess social initiations across various activities. After priming was applied, both participants showed an increase in spontaneous initiations. The instructor gave cues for the study's initial phase. By the conclusion of the phase, though, the kids were responding on their own, so the prompts had less of an impact. Despite the fact that generalization of responses happened during a phase of group activities, generalization across activities was not noticed (Zanolli et al., 1996).

Written Scripts

Children with autism have also benefited from the use of written scripts to help them communicate with peers more successfully. For instance, Goldstein and Cisar (1992) looked into how preschoolers with autism and typically developing peers used written scripts during sociodramatic play. The events featured a carnival, a pet store, and a magic store. Each youngster was given a written script in which to portray the roles of the clerk, assistant, and customer. The study used a multiple baseline design. All of the individuals experienced an increase in social interactions. In addition, the autistic youngster took part in social exchanges that went above and beyond what was specified in the script.

A script-fading technique was employed by Krantz and McClannahan (1993) to educate four autistic children to initiate with their classmates. Each script had ten phrases and questions that were related to current events, such as "Did you like swinging outside today?" Beginning with the whole text and finishing with just quotation marks, the scripts faded out in five steps. To guarantee that students read the scripts, the teacher utilized manual cues, which soon faded. The script-fading process was evaluated across participants using a multiple baseline design. Unscripted initiations were seen as well as scripted ones, and they were sustained at the 1-month follow-up without verbal cues. Additionally, initiations spread to many classmates, environments, activities, and teachers.



In a second study, Krantz and McClannahan (1998) instructed three preschoolers in initiations using written scripts by taping the phrases "look" and "watch me" beneath images in their photographic activity schedules. The effectiveness of scripts on initiations was assessed using multiple baselines among participants. Scripted and unscripted introductions to adults, as well as elaborations on the scripted material, were increased and sustained across receivers once participants learnt to employ these scripts. Unscripted initiations increased as scripts were eliminated from the schedules, and it was also noted that they began to spread to other activities.

Social Stories

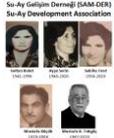
The Social Stories intervention is a recent development that involves self-management, written scripts, and priming techniques. A social tale is a brief, personalized narrative created to teach a kid with autism a particular social skill, event, or topic (Gray, 1998, 2000). In order to help children better relate to the events portrayed in the story, it is typically written in the first person. A social story explains what is happening, why it is happening, who will participate, when an event or activity will occur, and what behavior is expected of the child in a particular social setting. Social Stories are frequently created by parents or teachers and have a predetermined ratio of phrases that describe, direct, confirm, and offer the perspective of others, with the purpose of description over direction. Numerous habits, including social skills, have been addressed with them. In Gray's (2000) book, specific guidelines for writing Social Stories are provided.

The goal of the first study published on Social Stories was to help two 7-year-old boys and an 11-year-old girl with their play abilities and greetings (Swaggert et al., 1995). Each Social Story was five pages long, comprised visual representations of the goal behaviors and people described in the story, and for one participant, combined a response-cost system and a social-skills training approach. The participants' personalized Stories were read to them right before the exercise. The use of an AB design and a multicomponent intervention made it challenging to assess the Social Story intervention's efficacy, even though all participants' unwanted behaviors decreased.

In order to facilitate the introduction of five autistic children to their peers without disabilities, Social Stories have also been integrated with visual clues, role-play, and self-evaluative video feedback (Thiemann & Goldstein, 2001). For each participant, social stories focusing on gaining attention, starting conversations, starting requests, and responding were created and tested using a multiple baseline design across actions. Just before activity sessions, each target child and two of their friends read a social story and engaged in role-playing (e.g., art, pretend play, board games). Participants were expected to assess their own performance following the activity sessions by watching the videotaped activity sessions and noting whether or not they exhibited the desired behaviors.

Despite the fact that the intervention was successful in improving social skills for all participants, the individual treatment plan elements were not evaluated. Therefore, it was once more challenging to pinpoint the precise contribution that Social Stories made to the enhancement of social conduct. Additionally, it was difficult to maintain abilities, and for three of the individuals, a return to baseline occurred when visual cues and adult reminders were taken away. According to the scientists, this finding may indicate that changes in social behavior were brought on by visual cues and prompts.

A comparison between a reading condition and a singing condition was done because Social Stories have also been converted to a musical format (Brownell, 2002). Four kids who could speak and read a little bit took part in the investigation. The musical Social Stories were sung to an original tune, while the written Social Stories included illustrations. Targeted behaviors included perseverative speech, talking gently, and following instructions. These behaviors were assessed using a counterbalanced multi-element treatment design (i.e., ABAC/ACAB). Both treatment conditions resulted in a decrease in the target behaviors, with the singing condition outperforming the reading condition in only one instance.



Scattone, Tingstrom, and Wilczynski (2006) also looked at Social Stories, but they did not combine them with an other intervention to help three boys with their social initiations. All were literate, but none actively engaged or responded to peers during leisure activities. Prior to the activity, two participants who are both independent readers read their own stories; the third participant had his story read to him.

Target behaviors, which were assessed using a multiple baseline design across participants, included initiated remarks or requests made during a particular portion of free time. Only one participant had an instant benefit from the intervention, and another only saw a slight improvement. The results indicated that Social Stories may need to include an additional component, such as reinforcement, prompts, video modeling, etc., when focusing on initiations.

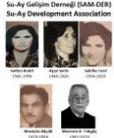
Pivotal Response Training

Researchers have recently started to investigate how to teach complicated social skills in natural environments (e.g., a playground; Koegel & Frea, 1993). According to research, the abilities picked up through these "loosely" structured ways may transfer to different people, environments, and activities (Pierce & Schreibman, 1997). Pivotal response training (PRT), one of these methods, focuses on teaching in crucial areas using a variety of cues, incentive, self-management, and self-initiations. Once these crucial areas are impacted, unintended collateral behavior changes could happen as well (Koegel & Frea, 1993). The key to enhancing learning and boosting generalization is to develop motivation. Differentiating tasks, encouraging approximations toward proper response, providing various exemplars, letting kids pick their own activities, and alternating simple and tough tasks can all help to increase motivation (Pierce & Schreibman, 1997).

PRT has been effective in teaching social skills to autistic kids. These abilities include supporting cooperative attention as well as sociodramatic and symbolic play (Thorp, Stahmer, & Schreibman, 1995). (Pierce & Schreibman, 1995). In one instance, Pierce and Schreibman (1997) trained eight peer trainers to instruct two boys in conversational speech and play skills. The subjects displayed a wide range of improper behaviors, such as echolalia and repetitive noises, and were largely unresponsive in social circumstances. Each peer received a booklet including detailed instructions on the steps (e.g., extend conversations, reinforce appropriate responding, teach responsivity to multiple cues, narrate play, vary toys, provide choice, turn taking).

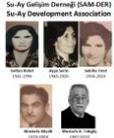
During PRT, toys were scattered over the floor of the classroom, and participants were told to play together. A qualified expert was there to give the teacher and peers feedback and continued instruction. To measure behavior changes, participants and peer trainers were divided into several baseline groups. The intervention was quite successful in getting the participants to speak more, produce longer phrases, and engage in verbal interactions more frequently. Additionally, conversational abilities were generalized with peers who were not involved in the study. Peer instruction, however, was time-consuming and required an expert's presence. Peers needed several months to apply PRT practices without assistance (Pierce & Schreibman, 1997).

Although autism is associated with significant, deeply ingrained social deficiencies that may require lifelong management, improving social skills may improve the prognosis. Teaching social skills should start as early as possible, usually in the preschool years, and continue through middle and high school, just as teaching language and preacademic abilities. Social skills therapies have improved in sophistication over the past 10 years, combining video technology and intensive peer training into their designs. Some of these treatments, like Social Stories and written scripts, are comparatively simple to put into practice and are easily generated by teachers and parents. Others are more complicated and frequently require the assistance of an expert, such as video modeling and crucial response training. Others, like selfmanagement, urge kids to keep an eye on their own behavior when an adult isn't around, encouraging independence and self-reliance.



REFERENCES

- Alhuzimi, T. (2022). Efficacy of video modelling (vm) in developing social skills in children with Autism Spectrum Disorder (ASD) at school in Saudi Arabia. *International Journal of Disability, Development and Education*, 69(2), 550-564.
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders (DSM-5®)*. Washington, DC: American Psychiatric Pub.
- Apple, A.L., Billingsley, F., & Schwartz, I.S. (2005). Effects of video modeling alone and with self-management on compliment-giving behaviors of children with high functioning ASD. *Journal of Positive Behavior Interventions*, 7, 33-46.
- Baron-Cohen, S., Leslie, A., & Frith, U. (1985). Does the autistic child have a "theory of mind?" *Cognition*, 21, 37-46.
- Brownell, M. D. (2002). Musically adapted social stories to modify behaviors in students with autism: Four case studies. *Journal of music therapy*, 39(2), 117-144.
- Bellini, S., Peters, J. K., Benner, L., & Hopf, A. (2017). A meta-analysis of school-based social skills interventions for children with autism spectrum disorders. *Remedial and Special Education*, 28, 153-162.
- Charlop-Christy, M.H., & Daneshvar, S. (2003). Using video modeling to teach perspective taking to children with autism. *Journal of Positive Behavior Interventions*, 5, 12-21.
- Charlop-Christy, M.H., Le, L., & Freeman, K.A. (2000). A comparison of video modeling with in vivo modeling for teaching children with autism. *Journal of Autism and Developmental Disorders*, 30, 537-552.
- Craig, F., Crippa, A., Ruggiero, M., Rizzato, V., Russo, L., Fanizza, I., & Trabacca, A. (2021). Characterization of Autism Spectrum Disorder (ASD) subtypes based on the relationship between motor skills and social communication abilities. *Human Movement Science*, 77, 102802.
- D'Ateno, P., Mangiapanello, K., & Taylor, B.A. (2003). Using video modeling to teach complex play sequences to a preschooler with autism. *Journal of Positive Behavior Interventions*, 5, 5-11.
- Dynia, J. M., Walton, K. M., Brock, M. E., & Tiede, G. (2020). Early childhood special education teachers' use of evidence-based practices with children with autism spectrum disorder. *Research in Autism Spectrum Disorders*, 77, 101606.
- Goin-Kochel, R. P., Myers, B. J., & Mackintosh, B. H. (2007). Parental report on the use of treatments and therapies for children with autism spectrum disorders. *Research in Autism Spectrum Disorders*, 1, 195-209.
- Goldstein, H., & Cisar, C. (1992). Promoting interaction during sociodramatic play: Teaching scripts to typical preschoolers and classmates with disabilities. *Journal of Applied Behavior Analysis*, 25, 289-305.
- Gonzalez-Lopez, A., & Kamps, D.M. (1997). Social skills training to increase social interactions between children with autism and their typical peers. *Focus on Autism and Other Developmental Disabilities*, 12, 2-14.
- Granpeesheh, D., Tarbox, J., Najdowski, A. C., & Kornack, J. (2014). *Evidence-based treatment for children with autism: the CARD model*. San Diego: Elsevier
- Gray, C. (1998). Social Stories 101. *The Morning News*, 10(1), 2-6.
- Gray, C. (2000). *The New Social Stories Book*. Arlington, TX: Future Horizons.
- Hotton, M., & Coles, S. (2016). The effectiveness of social skills training groups for individuals with autism spectrum disorder. *Review Journal of Autism and Developmental Disorders*, 3, 68-81.
- Howell, K.W. (1985). A task-analytical approach to social behavior. *Remedial and Special Education*, 6, 24-30.
- Koegel, R.L., & Frea, W.D. (1993). Treatment of social behavior in autism through the modification of pivotal social skills. *Journal of Applied Behavior Analysis*, 26, 369-377.
- Koegel, R.L., & Koegel, L.K. (1990). Extended reductions in stereotypic behavior of students with autism through a self-management treatment package. *Journal of Applied Behavior Analysis*, 28, 47-59.
- Koegel, L.K., Koegel, R.L., Hurley, C., & Frea, W.D. (1992). Improving social skills and disruptive behavior in children with autism through self-management. *Journal of Applied Behavior Analysis*, 25, 341-353.
- Krantz, P.J., & McClannahan, L.E. (1993). Teaching children with autism to initiate to peers: Effects of a script-fading procedure. *Journal of Applied Behavior Analysis*, 26, 121-132.
- Krantz, P.J., & McClannahan, L.E. (1998). Social interaction skills for children with autism: A script-fading procedure for beginning readers. *Journal of Applied Behavior Analysis*, 31, 191-202.
- Lovaas, O.I. (1977). *The autistic child: Language development through behavior modification*. New York: Irvington.



- Mancina, C., Tankersley, M., Kamps, D., Kravits, T., & Parrett, J. (2000). Brief report: Reduction of inappropriate vocalizations for a child with autism using a self-management treatment program. *Journal of Autism and Developmental Disorders*, 30, 599–606.
- Morrison, L., Kamps, D., Garcia, J., & Parker, D. (2001). Peer mediation and monitoring strategies to improve initiations and social skills for students with autism. *Journal of Positive Behavior Interventions*, 3, 237–250.
- Newman, B., Buffington, B., O’Grady, M.A., McDonald, M.E., Poulson, C.L., & Hemmes, N.S. (1995). Self-management of schedule following in three teenagers with autism. *Behavioral Disorders*, 20, 190–196.
- Øzerk, K., Özerk, G., & Silveira-Zaldivar, T. (2021). Developing social skills and social competence in children with autism. *International Electronic Journal of Elementary Education*, 13(3), 341-363.
- Pierce, K.L., & Schreibman, L. (1994). Teaching daily living skills to children with autism in unsupervised settings through pictorial self-management. *Journal of Applied Behavior Analysis*, 27, 471–481.
- Pierce, K.L., & Schreibman, L. (1995). Increasing complex social behaviors in children with autism: Effects of peerimplemented pivotal response training. *Journal of Applied Behavior Analysis*, 28, 285–295.
- Pierce, K.L., & Schreibman, L. (1997). Using peer trainers to promote social behavior in autism: Are they effective at enhancing multiple social modalities? *Focus on Autism and Other Developmental Disabilities*, 12, 207–218.
- Scattone, D., Tingstrom, D.H., & Wilczynski, S.M. (2006). Increasing appropriate social interactions of children with autism spectrum disorders using Social Stories. *Focus on Autism*, 21(4), 211–222.
- Scattone, D., Wilczynski, S.M., Edwards, R.P., & Rabian, B. (2002). Decreasing disruptive behaviors of children with autism using Social Stories. *Journal of Autism and Developmental Disorders*, 32, 535–543.
- Schreibman, L., Whalen, C., & Stahmer, A.C. (2000). The use of video priming to reduce disruptive transition behavior in children with autism. *Journal of Positive Behavior Interventions*, 2, 3–11.
- Schwartzberg, E. T., & Silverman, M. J. (2013). Effects of music-based social stories on comprehension and generalization of social skills in children with autism spectrum disorders: A randomized effectiveness study. *The Arts in Psychotherapy*, 40(3), 331-337.
- Sherer, M., Pierce, K.L., Paredes, S., Kisacky, K.L., Ingersoll, B., & Schreibman, L. (2001). Enhancing conversation skills in children with autism via video technology. *Behavior Modification*, 25, 140–159.
- Simacek, J., Elmquist, M., Dimian, A. F., & Reichle, J. (2021). Current trends in telehealth applications to deliver social communication interventions for young children with or at risk for autism spectrum disorder. *Current Developmental Disorders Reports*, 8(1), 15-23.
- Stahmer, A.C. (1995). Teaching symbolic play to children with autism using pivotal response training. *Journal of Autism and Developmental Disorders*, 25, 123–141.
- Stahmer, A.C., & Schreibman, L. (1992). Teaching children with autism appropriate play in unsupervised environments using a self-management treatment package. *Journal of Applied Behavior Analysis*, 25, 447–459.
- Swaggert, B.L., Gagnon, E., Bock, S.J., Earles, T.L., Quinn, C., Myles, B.S., et al. (1995). Using social stories to teach social and behavioral skills to children with autism. *Focus on Autistic Behavior*, 10, 1–16.
- Taylor, B.A., Levin, L., & Jasper, S. (1999). Increasing play-related statements in children with autism toward their siblings: Effects of video modeling. *Journal of Developmental and Physical Disabilities*, 11, 253–264.
- Thorp, D.M., Stahmer, A.C., & Schreibman, L. (1995). The effects of sociodramatic training on children with autism. *Journal of Autism and Developmental Disorders*, 25, 265–282.
- Thiemann, K.S., & Goldstein, H. (2001). Social Stories, written text cues, and video feedback: Effects on social communication of children with autism. *Journal of Applied Behavior Analysis*, 34, 425–446.
- Zanolli, K., Daggett, J., & Adams, T. (1996). Teaching preschool age autistic children to make spontaneous initiations to peers using priming. *Journal of Autism and Developmental Disorders*, 26, 407–422.