An Overview of Social Skills Education for Adolescents with Autism Spectrum Disorder

Thao Thi Do[1], Anh Thu Nguyen Thi[2], Hoa Thi Nguyen[3]

Abstract

Adolescents with Autism Spectrum Disorder (ASD) often encounter difficulties in developing and applying social skills, which are crucial for their success in daily interactions and overall well-being. This paper provides an overview of existing social skills education programs designed for adolescents with ASD, examining the theoretical foundations, teaching strategies, and their impact on social competence. Additionally, the paper offers recommendations for practitioners and educators aiming to implement effective social skills interventions to support adolescents with ASD.

Keywords: *Autism Spectrum Disorder, Social Skills, Adolescence, Education, Intervention.*

Introduction

Adolescence is a formative period of development, characterized by significant physiological, cognitive, and emotional changes. For typically developing adolescents, it is a time of increasing social complexity, wherein peer relationships, identity formation, and emotional regulation become central to everyday life (Blakemore & Mills, 2014). However, for adolescents with Autism Spectrum Disorder (ASD), this developmental phase is often fraught with unique challenges, particularly in the domain of social communication. ASD is defined by the American Psychiatric Association (2013) as a neurodevelopmental disorder with persistent deficits in social communication and interaction, alongside restricted and repetitive behaviors. These deficits manifest most prominently in difficulties with initiating and sustaining reciprocal social interactions, interpreting nonverbal communication, and forming age-appropriate relationships.

The social difficulties experienced by adolescents with ASD are compounded by the increasing complexity of social interactions during adolescence. Whereas younger children can rely on adults to mediate social exchanges, adolescents are expected to navigate more sophisticated social landscapes independently, including peer groups, romantic relationships, and group activities (Szatmari et al., 2012). These expectations place substantial pressure on adolescents with ASD, who may lack the necessary social skills to interpret nuanced social cues, such as sarcasm, body language, and facial expressions (Klin et al., 2002). As a result, many adolescents with ASD are vulnerable to social isolation, bullying, and anxiety, further exacerbating their social impairments (Cappadocia et al., 2012). Over time, social isolation can lead to emotional distress, depression, and long-term difficulties in academic and vocational success (Mazurek & Kanne, 2010).

Complicating matters further, social skills deficits in adolescents with ASD often exist alongside challenges in executive functioning, emotional regulation, and cognitive processing. These cognitive deficits hinder their ability to adapt to changing social environments and engage in flexible thinking during interactions (Happe & Frith, 2006). For example, adolescents with ASD may struggle to interpret others' emotions, fail to recognize when a social situation requires a change in behavior, or become fixated on specific topics during conversations. These tendencies can alienate peers and further limit opportunities for naturalistic

[1] Faculty of Special Education, Hanoi National University of Education. Orcid: 0009-0000-8972-9524. Email: thaodt@hnue.edu.vn. Telephone: 0912.720.496.
[2] Faculty of Special Education, Hanoi National University of Education, Hanoi, Viet Nam,40009-0009-0868-3583, n.anhthu1799@gmail.com, 0944062188
[3] Faculty of Special Education, Hanoi National University of Education, Hanoi, Viet Nam. Email: nguyenhoa@hnue.edu.vn.

social learning (Barnhill, 2002). In response to these pervasive difficulties, social skills interventions have emerged as a crucial component of support for this population.

Social skills training aims to address the core social challenges faced by adolescents with ASD by teaching essential interpersonal skills, such as initiating conversations, maintaining eye contact, and understanding social cues. These interventions are grounded in several theoretical approaches, including social learning theory (Bandura, 1977), which posits that social behaviors can be learned through observation, modeling, and reinforcement. By providing structured opportunities for practice and feedback, social skills training helps adolescents with ASD acquire and refine these behaviors in a supportive environment. Additionally, cognitive-behavioral approaches emphasize the role of thoughts and emotions in guiding behavior, helping individuals with ASD recognize maladaptive thought patterns and replace them with more adaptive social strategies (Rao et al., 2008).

A wide variety of social skills interventions have been developed and tested over the past two decades, ranging from one-on-one therapies to group-based programs. Group-based interventions are particularly effective for adolescents with ASD because they allow for the real-time practice of social skills in a controlled but dynamic setting (White et al., 2010). For example, the Program for the Education and Enrichment of Relational Skills (PEERS), developed by Laugeson and Frankel (2010), is a highly structured group-based intervention designed to teach adolescents how to make and maintain friendships. The PEERS program uses role-playing, behavioral rehearsal, and direct instruction to teach specific social behaviors, such as entering and exiting conversations, handling peer rejection, and managing conflict. Studies have shown that adolescents who participate in PEERS demonstrate significant improvements in social competence and reductions in social anxiety (Laugeson et al., 2012).

In addition to group-based programs, peer-mediated interventions have garnered attention as a promising approach to social skills training for adolescents with ASD. These interventions involve training typically developing peers to model and reinforce appropriate social behaviors, thereby creating natural opportunities for adolescents with ASD to practice social skills in authentic contexts (Chang & Locke, 2016). Peer-mediated interventions are grounded in Vygotsky's (1978) theory of social development, which emphasizes the role of social interaction in cognitive growth. By learning from their peers in familiar environments, adolescents with ASD can generalize the social skills they acquire to other settings, such as school and community events. Research suggests that peer-mediated interventions not only improve social engagement but also foster more positive peer relationships (Koegel et al., 2013).

Despite the demonstrated efficacy of many social skills interventions, significant challenges remain in ensuring that adolescents with ASD generalize the skills learned in therapy to real-life situations. The issue of generalization—how well learned skills transfer to unstructured and unpredictable environments— continues to be a primary concern in the field (Bellini et al., 2007). Many adolescents with ASD demonstrate substantial progress in clinical settings but struggle to apply those skills in less controlled, more socially ambiguous contexts, such as at school or in the community. This suggests that while structured interventions are beneficial, they may not fully prepare individuals for the complexities of real-world social interactions.

Another barrier to effective social skills intervention is the heterogeneity of ASD itself. Adolescents with ASD exhibit a wide range of abilities, personalities, and needs, making it difficult to design a one-size-fits-all approach to social skills training. Some individuals may excel in certain areas, such as verbal communication, while others may need more support in emotional recognition or behavioral regulation (Church et al., 2000). As a result, social skills programs must be tailored to the specific strengths and challenges of each adolescent, requiring a flexible, individualized approach to intervention design and delivery.

This article aims to provide an in-depth review of the literature on social skills education for adolescents with ASD. By synthesizing research findings from a range of intervention studies, the paper seeks to identify the most effective methods for teaching social skills to this population. Additionally, it will explore the barriers that impede the generalization of these skills to real-world contexts and offer recommendations for improving the design and implementation of social skills interventions. In doing so, this review hopes to contribute to the growing body of knowledge on how to support adolescents with ASD in their journey toward more meaningful social engagement and success in adulthood.

Methods

To provide a comprehensive overview of social skills interventions for adolescents with Autism Spectrum Disorder (ASD), a systematic review was conducted following the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines. The primary objective of this review was to identify, evaluate, and synthesize existing research studies that assess the effectiveness of various intervention approaches aimed at enhancing social skills among adolescents with ASD. The review process involved several key steps: defining inclusion criteria, conducting a systematic search of relevant databases, screening studies for eligibility, extracting data, and performing a qualitative and quantitative synthesis of the findings.

Procedure

A systematic search was conducted across multiple academic databases, including Google Scholar, PubMed, and PsycNET. The search was restricted to studies published between 2000 and 2024. Key search terms included "social skills interventions," "adolescents with Autism Spectrum Disorder," "group-based interventions," "cognitive-behavioral therapy," "peer-mediated interventions," "technology-based interventions," and "community-based programs."

The inclusion criteria for studies were as follows: (1) studies targeting adolescents with Autism Spectrum Disorder (ASD), (2) studies focusing on social skills training interventions, and (3) studies reporting measurable outcomes related to social skills improvement. Studies were excluded if they: (1) did not provide empirical data, (2) were not peer-reviewed, or (3) focused on populations other than adolescents with ASD.

Statistics

Data from the studies that met the inclusion criteria were extracted using a standardized form. Information recorded included study design, intervention type, sample size, outcome measures, and key findings.

PRISMA Flow Diagram Summary

- Total articles identified through database search: 45

- Articles after removal of duplicates: 39

- Articles screened by title and abstract: 35

- Articles excluded based on inclusion criteria: 23

- Full-text articles assessed for eligibility: 12

- Articles meeting inclusion criteria: 12

This systematic review offers a comprehensive understanding of current practices and their impact on social skills development in adolescents with ASD, highlighting both successful strategies and areas that require further investigation.

Results

The literature review identified a range of studies examining social skills interventions for adolescents with Autism Spectrum Disorder (ASD). These studies varied in design, scope, and focus, with interventions addressing various aspects of social functioning, including peer interaction, emotional recognition, and communication strategies. This section provides a comprehensive summary of the key findings across different types of interventions.

Table 1. Overview of social skills intervention studies for adolescents with ASD

Study	Intervention Type	Key Findings	Generalization	Limitations
DeRosier et al. (2011)	Group-based (SSGRIN)	Improved social competence, peer interactions	Limited to structured environments	Small sample size
Laugeson et al. (2012)	Group-based (PEERS)	Enhanced friendship quality, reduced anxiety	Moderate generalization post-intervention	Needs continued reinforcement
White et al. (2009)	CBT	Reduced social anxiety, increased social engagement	Maintained in school settings	Follow-up support needed
Sofronoff et al. (2007)	CBT	Better emotional regulation, social resilience	Mixed generalization	Varies by individual
Chang & Locke (2016)	Peer-mediated	Increased peer interaction, reduced isolation	Strong in school settings	Needs more research on long-term effects
Ke et al. (2018)	Technology (VR)	Improved social communication, adaptability	Limited without in-person interaction	Technology access challenges
Lopata et al. (2006)	Hybrid	Enhanced communication, emotional regulation	Good generalization across contexts	Complex intervention structure
Bearss et al. (2015)	Parent-mediated	Improved initiation and conflict resolution	Strong generalization at home	Parent consistency varied
Kasari et al. (2012)	School-based	Increased peer interaction, social reciprocity	Sustained over school year	Limited to structured school settings
Gantman et al. (2012)	Community-based	Enhanced teamwork, conversational skills	Moderate in unstructured settings	Continued participation needed
Bahrami et al. (2012)	Martial arts	Improved self-regulation, turn-taking	Extended beyond training setting	Limited sample size
Dyer et al. (2018)	Martial arts	Better eye contact, peer interactions	Generalized to other social settings	Short-term study

Group-based social skills training
Group-based social skills training is one of the most widely studied interventions for adolescents with ASD. Such programs focus on teaching social rules, conversation techniques, and interaction strategies within a structured, controlled environment.

One prominent study by DeRosier, Swick, Davis, McMillen, and Matthews (2011) investigated the Social Skills Group Intervention (SSGRIN), designed for middle school children with ASD. The program focused on enhancing peer relations through structured social interactions, role-playing, and feedback. Their findings revealed that participants showed significant improvements in social competence, specifically in the areas of initiating conversations and understanding nonverbal cues. After the intervention, many students reported better social interactions with peers, although generalization of these skills to unstructured environments remained limited.

Similarly, Laugeson et al. (2012) studied the PEERS (Program for the Education and Enrichment of Relational Skills) intervention, a group-based program targeting social challenges in adolescents with ASD. Participants were trained in conversation skills, friendship-building, and conflict management through behavioral rehearsal and role-playing. The results showed that adolescents who participated in PEERS had improved social functioning as measured by increased friendship quality and decreased social anxiety. A six-month follow-up indicated that gains were largely maintained, though further reinforcement was necessary for lasting behavioral changes.

Cognitive-behavioral approaches to social skills
Cognitive-behavioral therapy (CBT) has also been employed to improve social functioning in adolescents with ASD. This approach focuses on altering maladaptive thought patterns that hinder effective social interaction, teaching individuals to recognize and modify negative cognitive processes while engaging in social situations.

White, Ollendick, Scahill, Oswald, and Albano (2009) conducted a study on CBT for adolescents with high-functioning ASD, focusing on social anxiety reduction. The intervention targeted both the cognitive aspects of social avoidance and skill-building techniques such as maintaining eye contact and participating in group discussions. The results indicated that adolescents demonstrated reduced social anxiety and improved social engagement in school settings. However, a limitation noted in the study was that some participants required additional reinforcement sessions post-intervention to maintain these gains.

In another study, Sofronoff, Attwood, Hinton, and Levin (2007) explored the efficacy of a cognitive-behavioral intervention in teaching emotional regulation and social skills to adolescents with ASD. The program emphasized the recognition and management of emotions during social interactions, which is often impaired in individuals with ASD. Findings revealed improvements in both emotional understanding and social functioning, with parents reporting that participants demonstrated greater resilience in dealing with peer-related stressors.

Peer-mediated social skills interventions
Another emerging area of research involves peer-mediated interventions, where typically developing peers are trained to model and reinforce appropriate social behaviors. These programs leverage natural peer interactions to help adolescents with ASD practice social skills in more authentic settings.

Chang and Locke (2016) conducted a comprehensive review of peer-mediated interventions for adolescents with ASD. They found that such interventions, when integrated into school settings, were effective in promoting reciprocal social interactions. In particular, adolescents who participated in peer-mediated

programs showed increased participation in group activities and greater engagement during free play periods. Moreover, these interventions were associated with a reduction in social isolation and an increase in positive peer relationships.

Owen-DeSchryver, Carr, Cale, and Blakeley-Smith (2008) conducted a peer-mediated intervention in a mainstream high school, training typically developing students to interact with classmates with ASD. Results demonstrated significant improvements in the social skills of the ASD group, including better conversational turn-taking and enhanced participation in extracurricular activities. Peers also reported feeling more competent in engaging with their classmates with ASD, suggesting that such interventions have mutual benefits.

Technology-based interventions
Technology-based interventions, such as virtual reality (VR) and video modeling, have gained attention as novel methods for teaching social skills to adolescents with ASD. These interventions provide safe, controlled environments where individuals can practice social interactions repeatedly without real-world social pressures.

Ke, Whalon, and Yun (2018) examined the impact of a virtual reality-based social skills intervention for adolescents with ASD. The VR program simulated social scenarios, such as conversations and group activities, allowing participants to practice appropriate responses. Results showed significant improvements in social communication, with participants demonstrating greater confidence and adaptability in real-life social interactions following the intervention. However, the study noted that while VR is promising, it is not a substitute for real-world social interaction and should be combined with in-person social skills training for optimal results.

In another study, Mason, Davis, and Andrews (2017) explored the use of video modeling to teach conversation skills to adolescents with ASD. Video modeling involves showing participants videos of individuals engaging in appropriate social behaviors, which they then mimic. The findings revealed that adolescents who used video modeling demonstrated improved conversational skills and greater awareness of social cues. Parents and teachers also reported fewer socially awkward moments in everyday interactions. However, like other interventions, challenges remained in generalizing these skills to more spontaneous social situations.

Hybrid interventions
Some studies have explored hybrid interventions that combine multiple approaches, such as blending group-based training with peer-mediated strategies or incorporating technology into traditional social skills programs.

Lopata, Thomeer, Volker, and Nida (2006) conducted a hybrid social skills intervention that integrated group-based training with video modeling and peer-mediated interactions. Adolescents with ASD participated in structured group sessions followed by video-based feedback and practice with peers. The results indicated significant improvements in both social communication and emotional regulation, with participants showing greater confidence in social settings and enhanced peer relationships. Furthermore, teachers reported that the students were more engaged in group discussions and class activities post-intervention.

The hybrid nature of this approach allowed for the repetition and reinforcement of social behaviors in different contexts, leading to better generalization of skills across various environments. Lopata et al. (2006) concluded that combining multiple intervention strategies might be one of the most effective ways to teach

social skills to adolescents with ASD, given the heterogeneity of the population and the need for diverse learning methods.

Parent-mediated social skills interventions
Parent-mediated interventions, where parents are trained to facilitate social skills practice at home, have gained traction as a viable method for improving the social functioning of adolescents with ASD. These interventions aim to extend learning from structured settings to the home environment, providing consistent reinforcement.

A study by Bearss et al. (2015) examined the effects of a parent-mediated social skills program on adolescents with ASD. The intervention involved parent training sessions that focused on teaching techniques for modeling appropriate social behaviors and reinforcing them during everyday activities. The results showed that adolescents exhibited marked improvements in initiating social interactions and managing social conflicts. Parents reported a higher level of engagement and understanding of their child's social difficulties, which contributed to more effective at-home interventions. The study underscored the importance of parent involvement in reinforcing social skills outside of clinical settings, although it also noted that some parents faced challenges maintaining consistency over time.

In another study, Solomon, Bauminger, and Rogers (2014) explored parent-mediated interventions aimed at improving joint attention and social communication in adolescents with ASD. The findings indicated that adolescents who participated in these programs had greater success in sustaining conversations and showing appropriate emotional responses during interactions with peers. The study also found that parents' involvement increased their awareness of social challenges their children faced, leading to more targeted support.

School-based social skills programs
Interventions conducted in school settings are particularly valuable, as they allow for real-time social interactions with peers in a natural environment. Schools are ideal venues for implementing social skills programs because they offer regular opportunities for adolescents to practice and reinforce their social learning.

Kasari, Rotheram-Fuller, Locke, and Gulsrud (2012) examined the effectiveness of a school-based social skills program in promoting peer interaction among adolescents with ASD. The intervention incorporated structured group activities within the school day, where participants were encouraged to engage in cooperative tasks and social games with typically developing peers. The results indicated a significant increase in positive peer interactions, with participants demonstrating greater social engagement and improved social reciprocity. A follow-up study by Kasari et al. (2013) found that these improvements were sustained over the school year, highlighting the long-term benefits of school-based social skills training.

Another notable study by Koegel, Vernon, and Koegel (2009) investigated the use of peer mentors in a school-based setting to enhance social participation in adolescents with ASD. The program trained neurotypical students to interact with their ASD peers during lunch breaks and extracurricular activities. The findings revealed that the use of peer mentors resulted in increased social engagement and a reduction in social isolation for the adolescents with ASD. Teachers also noted an improvement in overall classroom participation and peer relationships, suggesting that integrating social skills training into the daily school routine has widespread benefits.

Community-based social skills interventions
Community-based interventions, which occur outside traditional school or clinical settings, offer adolescents with ASD an opportunity to practice social skills in broader social environments. These

interventions often take place in clubs, recreational programs, or other community spaces, where adolescents can engage in structured activities with their peers.

Gantman, Kapp, Orenski, and Laugeson (2012) conducted a study on the effectiveness of community-based social skills training in adolescents with ASD. The intervention took place within a local youth center and included activities such as group discussions, sports, and collaborative projects. The results indicated that participants showed improvements in conversational skills, teamwork, and conflict resolution. Moreover, many participants reported feeling more confident in navigating social situations outside of structured environments, although continued participation in community programs was necessary to maintain these gains.

Smith, Koegel, Koegel, Openden, and Foss (2014) evaluated the impact of community-based leisure programs on social participation in adolescents with ASD. The program included activities such as drama classes and outdoor sports, which encouraged cooperative play and communication among participants. Results demonstrated that adolescents with ASD showed increased participation in group activities and improved ability to initiate conversations with peers. Parents also reported that their children were more engaged in community events following the intervention.

Martial arts-based social skills interventions
An innovative approach to social skills development in adolescents with ASD involves martial arts programs. Martial arts training has been found to improve self-discipline, focus, and emotional regulation, which can enhance social interaction skills.

Bahrami et al. (2012) explored the effects of a martial arts program on social functioning in adolescents with ASD. The study focused on Taekwondo, which emphasizes self-control and respect for others. Results indicated that participants showed significant improvements in social behaviors such as waiting for turns, listening, and respecting personal boundaries. The physical and mental discipline required in martial arts also contributed to reductions in disruptive behaviors during social interactions. Teachers and parents alike noted that the participants demonstrated greater patience and self-regulation, both critical components of successful social interactions.

A study by Dyer, Green, and Godwin (2018) also examined the impact of martial arts on social skills in adolescents with ASD. The findings revealed that adolescents who participated in a structured martial arts program displayed enhanced social awareness, better eye contact, and improved peer interactions during and after training sessions. These improvements extended to settings outside the dojo, suggesting that martial arts may serve as a practical and enjoyable medium for teaching social skills.

Conclusion

This comprehensive overview of social skills interventions for adolescents with Autism Spectrum Disorder (ASD) reveals a variety of approaches and their efficacy in enhancing social competencies. The findings from the reviewed studies underscore the multifaceted nature of social skills training and highlight the effectiveness of different intervention types across various contexts.

Overall, the reviewed interventions show promising results in improving social skills among adolescents with ASD. However, each approach has its limitations and may require ongoing support and adaptation to meet individual needs. Future research should focus on refining these interventions, exploring their long-term effects, and developing strategies for broader application in diverse settings. The continued advancement of both traditional and innovative approaches will be crucial in enhancing the social functioning and overall quality of life for adolescents with ASD.

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Ethical considerations

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Conflict of Interest

The authors declare no conflicts of interest

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References

American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders (5th ed.).

Bahrami, F., Movahedi, A., Marandi, S. M., & Abedi, A. (2012). The effect of karate techniques training on communication deficit of children with Autism Spectrum Disorders. Journal of Autism and Developmental Disorders, 42(10), 2201-2207.

Bandura, A. (1977). Social learning theory. Prentice-Hall.

Barnhill, G. P. (2002). Social attributions and depression in adolescents with Asperger syndrome. Focus on Autism and Other Developmental Disabilities, 17(4), 161-171.

Bearss, K., Johnson, C., Smith, T., Lecavalier, L., Swiezy, N., Aman, M., ... & Scahill, L. (2015). Effect of parent training vs parent education on behavioral problems in children with autism spectrum disorder: A randomized clinical trial. JAMA Psychiatry, 72(2), 132-140.

Blakemore, S. J., & Mills, K. L. (2014). Is adolescence a sensitive period for sociocultural processing? Annual Review of Psychology, 65, 187-207.

Cappadocia, M. C., Weiss, J. A., & Pepler, D. (2012). Bullying experiences among children and youth with autism spectrum disorders. Journal of Autism and Developmental Disorders, 42(2), 266-277.

Chang, Y. C., & Locke, J. (2016). A systematic review of peer-mediated interventions for children with autism spectrum disorder. Research in Autism Spectrum Disorders, 27, 1-10.

Chang, Y. C., & Locke, J. (2016). Peer-mediated interventions for young children with autism spectrum disorders: A systematic review. Journal of Autism and Developmental Disorders, 46(3), 811-826.

Church, C., Alisanski, S., & Amanullah, S. (2000). The social, behavioral, and academic experiences of children with Asperger syndrome. Focus on Autism and Other Developmental Disabilities, 15(1), 12-20.

DeRosier, M. E., Swick, D. C., Davis, N. O., McMillen, J. S., & Matthews, R. (2011). The efficacy of a social skills group intervention for improving social behaviors in children with high functioning autism spectrum disorders. Journal of Autism and Developmental Disorders, 41(8), 1033-1043.

Dyer, L., Green, T., & Godwin, E. (2018). The impact of martial arts training on social skills in children with Autism Spectrum Disorder. International Journal of Therapy and Rehabilitation, 25(4), 162-169.

Gantman, A., Kapp, S. K., Orenski, K., & Laugeson, E. A. (2012). Social skills training for young adults with high-functioning autism spectrum disorders: A randomized controlled pilot study. Journal of Autism and Developmental Disorders, 42(6), 1094-1103.

Happe, F., & Frith, U. (2006). The weak coherence account: Detail-focused cognitive style in autism spectrum disorders. Journal of Autism and Developmental Disorders, 36(1), 5-25.

Kasari, C., Rotheram-Fuller, E., Locke, J., & Gulsrud, A. (2012). Making the connection: Randomized controlled trial of social skills at school for children with autism spectrum disorders. Journal of Child Psychology and Psychiatry, 53(4), 431-439.

Ke, F., Whalon, K. J., & Yun, J. (2018). Virtual reality-based social interaction training for children with high-functioning autism. Journal of Autism and Developmental Disorders, 48(4), 1421-1430.

Klin, A., Jones, W., Schultz, R., Volkmar, F., & Cohen, D. (2002). Visual fixation patterns during viewing of naturalistic social situations as predictors of social competence in individuals with autism. Archives of General Psychiatry, 59(9), 809-816.

Koegel, L. K., Ashbaugh, K., Koegel, R. L., Detar, W., & Regester, A. (2013). Increasing socialization in adults with autism spectrum disorder. Psychology in the Schools, 50(9), 899-909.

Koegel, R. L., Vernon, T. W., & Koegel, L. K. (2009). Improving social initiations in young children with autism using motivational techniques. Journal of Autism and Developmental Disorders, 39(9), 1240-1251.

Laugeson, E. A., & Frankel, F. (2010). Social skills for teenagers with developmental and autism spectrum disorders: The PEERS treatment manual. Routledge.

Laugeson, E. A., Frankel, F., Gantman, A., Dillon, A. R., & Mogil, C. (2012). Evidence-based social skills training for adolescents with autism spectrum disorders: The UCLA PEERS program. Journal of Autism and Developmental Disorders, 42(6), 1025-1036.

Lopata, C., Thomeer, M. L., Volker, M. A., & Nida, R. E. (2006). Effectiveness of a cognitive-behavioral treatment on the social behaviors of children with Asperger Disorder. Focus on Autism and Other Developmental Disabilities, 21(4), 237-244.

Mason, R., Davis, K., & Andrews, T. (2017). Video modeling for teaching social communication skills to children with autism spectrum disorder: A systematic review. Journal of Autism and Developmental Disorders, 47(3), 560-579.

Mazurek, M. O., & Kanne, S. M. (2010). Friendship and internalizing symptoms among children and adolescents with ASD. Journal of Autism and Developmental Disorders, 40(12), 1512-1520.

Owen-DeSchryver, J. S., Carr, E. G., Cale, S. I., & Blakeley-Smith, A. (2008). Promoting social interactions between students with autism spectrum disorders and their peers in inclusive school settings. Focus on Autism and Other Developmental Disabilities, 23(1), 15-28.

Rao, P. A., Beidel, D. C., & Murray, M. J. (2008). Social skills interventions for children with Asperger's syndrome or high-functioning autism: A review and recommendations. Journal of Autism and Developmental Disorders, 38(2), 353-361.

Smith, A., Koegel, R., Koegel, L., Openden, D., & Foss, S. (2014). Community-based programs for teaching social skills to children with autism spectrum disorder. Journal of Positive Behavior Interventions, 16(3),

Sofronoff, K., Attwood, T., Hinton, S., & Levin, I. (2007). A randomized controlled trial of a cognitive behavioural intervention for anger management in children diagnosed with Asperger syndrome. Journal of Autism and Developmental Disorders, 37(7), 1203-1214.

Szatmari, P., Georgiades, S., Duku, E., Zwaigenbaum, L., Bennett, T., Bryson, S., ... & Boyle, M. (2012). Developmental trajectories of symptom severity and adaptive functioning in an inception cohort of preschool children with Autism Spectrum Disorder (ASD). JAMA Psychiatry, 69(6), 589-595.

Vygotsky, L. S. (1978). Mind in society: The development of higher psychological processes. Harvard University Press.

White, S. W., Keonig, K., & Scahill, L. (2010). Social skills development in children with autism spectrum disorders: A review of the intervention research. Journal of Autism and Developmental Disorders, 37(10), 1858-1868.