

# Promoting Social Competence with Classical and Contemporary Treatment: Teaching Communication for Children with Autism

Norhafizha Rinanda  
 University of Muhammadiyah Malang  
 norhafizharinanda@gmail.com

Hanif Kartika Indrasari  
 University of Muhammadiyah Malang  
 kartikahanif@yahoo.com

**Abstract:** *This article aims to summarize and find out the different outcomes of classical and contemporary treatments in psychology that are designed to improve social competence in children with autism. Researchers conducted a literature review using 25 articles on social competence in children with autism who had been previously selected. This article is analyzed and explained descriptively. The findings of this article analysis show that there are some similarities and differences between the treatments, such as approaches of treatment that tend to use a humanistic and behavioral approach. Some participation is classic involving family members, while contemporary treatments involves parents, teachers, and peers. Contemporary approaches use more varied media such as technology. Classic treatment settings tend to be done in a room, while the more varied settings belong to the contemporary ones. Classic treatments have a shorter duration and the effectiveness of contemporary treatments is lower than classics due to the large variety of media.*

*Keywords: social competence, classic treatment, contemporary treatment, children, autism*

## **Introduction**

Social competence is an individual's ability to relate to social behavior. Social competence is associated with a kind of positive thing in life (Berard, Loutzenhiser, Seigny, & Alfano, 2017; Ke, Whalon, & Yun, 2018; Whalon, Conroy, Martinez, & Werch, 2015). The individual will appropriately choose and implement goals in life if he/she has good social competence. If individual goals appropriately, they will easily manage and defend positive communication with their environment (Pekdogan & Kanak, 2016). The social competence concept includes social skills, social and personal communication, relationships with others, prosocial behavior, interpersonal skills, assertiveness, empathy, initiation, social interaction, participation, and response (Huskens, Palmen, Van der Werff, Lourens, & Barakova, 2015; Iswinarti, 2014).

In children, social competence is very important to learn and develop. Most children spend time at school and interact with friends. The environment has an important role in teaching positive social behavior (Katz & Girolametto, 2013). Social competence in childhood has a great influence on adulthood. When children interact with others, they begin to develop their social skills. Often children establish social relationships with parents and peers. Also, many factors can influence the development of children's social competence such as relationships with others, media, neglect, anger, aggression, and anxiety (Pekdogan & Kanak, 2016; Whalon et al., 2015).

In fact, not every child has good social competence. Some children with physical or psychological disorders or

problems are reported to have low social competence compared to children their age (Pekdogan & Kanak, 2016), as children with developmental disorders (neurodevelopmental disorders). Such disorder is characterized by deficits in development and it affects personal, social, academic, and work functions (APA, 2013). As children with special conditions, of course, they have the right to have learning opportunities to help their survival. Children who experience deficits in social competence need to be trained to develop their abilities.

The deficit in social competence occurs in children who have autism (Chang & Locke, 2016). Autism is a complex neurodevelopmental disorder. It occurs during the development of children with a lack of main characters' social skills in addition to other symptoms that appear (Boudreau & Harvey, 2013). Children's problems are usually in the domain of everyday social behavior such as smiling, greeting, and eye contact (Adibsereshki, Nesayan, Asadi Gandomani, & Karimlou, 2015). In addition to the symptoms experienced, autism also makes the child vulnerable to experiencing other psychological problems. It has been reported that children with autistic disorders are also prone to experiencing poor social relationships, loneliness, poor emotional regulation, social phobia, anxiety, and egressions (Lever & Geurts, 2016; Locke, Ishijima, Kasari, & London, 2010; Pekdogan & Kanak, 2016). Adult individuals who have autism commonly show limited social relationships, poor work prospects, and vulnerability to other mental illnesses (Howlin & Magiati, 2017; Magiati, Tay, & Howlin, 2014).

**Classical and Contemporary Treatments in Teaching Social Competence**

Various treatments in psychology are used to improve the social competence of autistic children (Ke et al., 2018; Magiati et al., 2014). The treatment used is progressing every year. Besides, training children to be able to develop social competencies can be done by anyone, anytime and anywhere. The development of an age that began to advance contributes to making it easier for parents, teachers, and caregivers to make it easier to train children to develop their social competencies. The use of sophisticated technology began to be applied by researchers to become a media that can improve the social

competence of autistic children, especially in terms of interaction (Boudreau & Harvey, 2013; Buggey, Hoopes, Sherberger, & Williams, 2011; Huskens et al., 2015; Radley, Ford, Battaglia, & McHugh, 2014). In this literature, the researcher grouped several studies on psychological treatments designed to improve social competence in children with autism disorders based on the year of publication of the articles. Classic treatments refer to research conducted and published from 1985 to 1995. The contemporary treatments are research conducted and published from 2010 to 2019. This article purposed to find out the different kinds of psychological treatments that have been carried out in improving social competence in children with autism.

<b>Aspect</b>	<b>Classic Treatment</b>	<b>Contemporary Treatment</b>
<b>Approaches of Treatment</b>	<b>Most of the literature in both classical and contemporary research generally uses a behavioristic and humanistic approaches</b>	
<b>Involvement of Others in Treatments</b>	<b>Family (parent, siblings, caregivers)</b>	<b>Family, teacher, peers, caregivers, siblings, technology</b>
<b>Media Variations</b>	<b>Direct interaction between children and others during play (used toys, play games, and socio drama)</b>	<b>More varied media (robot, social tools and rules, games, self-modeling videos and superhero videos)</b>
<b>Setting</b>	<b>Most of treatment indoor (classroom / playroom)</b>	<b>Indoor and outdoor (room designed, community)</b>
<b>Duration</b>	<b>Session conducted ranges from 3-30 minutes a day</b>	<b>Session conducted ranges from 30 minutes to 2 hours a day</b>
<b>Effectiveness of Treatments</b>	<b>Classic treatments show consistently effective results</b>	<b>Finding results that the treatment used are not significant enough, but several other studies show significant results.</b>

*Table 1. Comparison of classic and contemporary treatment*

Overall, the research emphasizes improving social skills, social interaction, and the social behavior of children with others. This study found a difference between classic treatments with contemporary treatments in increasing the social competence of autistic children, such as the psychological approaches used, the involvement of others, the use of media or assistive devices, location, duration, and effectiveness of treatments. Some psychological interventions conducted by previous researchers show a moderate to strong effect on the development of social competence in autistic children (Whalon et al., 2015).

**Approaches of Treatment.** Various psychological approaches are used as a basis for increasing social competence. Most of the literature in both classical and contemporary research generally uses a behavioristic approach. Some forms of methods found are modeling that uses video (Buggey et al., 2011), shaping (Lefebvre &

Strain, 1989), reinforcement (Kohler, Frank W., Strain, Phillip s., Hoyson, M., Davis, L., Donina, Wendy M., & Rapp, 10949BC; Lefebvre & Strain, 1989), behavior activity / daily activity (Banda, Hart, & Liu-Gitz, 2010), and behavior modification (Koegel, Vernon, Koegel, Koegel, & Paullin, 2012). Also, the use of the humanistic approach is the second most used psychological approach after behaviorism. The methods used include child-centered and parent-child play interaction (Meek, Robinson, & Jahromi, 2012; Rogers, Herbison, Lewis, & Pantone, 1986). This approach is considered to be the predictor that contributes the most in child development (Meek et al., 2012).

**Involvement of Others in Treatments.** Negative influences from others can shape negative social behaviors in children, such as bad labeling by peers in children with autism and rejection from the environment. In addition to

training children with autism, the involvement of others to teach them how to communicate with children with autism and develop social behavior (Christopher, Hansen, & Macmillan, 1991). There are differences in the involvement of other people when implementing treatments in each literature. Other people's involvement includes parents/caregivers, relatives, peers, teachers, and the community. The involvement of caregivers showed better treatment results than without caregivers. However, the difficulty that occurs is that children are limited in generalizing the situation at the time of treatment to new situations (Chiang, Chu, & Lee, 2016; Kasari, Gulsrud, Wong, Kwon, & Locke, 2010; Lefebvre & Strain, 1989). Also, the normal siblings and peers during treatment have a good effect on autistic children (Chang & Locke, 2016; Huskens et al., 2015; Strain, Hoyson, & Jamieson, 1985).

Classic treatments often use people around the child's environment to help implement treatments, such as parents, teachers, siblings, and peers (Christopher et al., 1991; Goldstein & Cisar, 1992; Oke & Schreibman, 1990). Contemporary treatments have a broader scope, such as involving the public in interacting with children, the use of self-video, and robots during treatments (Boudreau & Harvey, 2013; Buggey et al., 2011; Huskens et al., 2015; Ko, Miller, & Vernon, 2019; Radley et al., 2014). It should be noted that before the intervention, it would be better if the child companion was first taught the skills related to the intervention to facilitate the implementation of treatments (Koegel et al., 2012).

**Media Variations.** Classical research generally uses direct interaction between children and others during play, using tools such as toys, games, and socio drama. Play is considered as a suitable mediator to improve communication. It is fun and provides benefits to children's development. When playing, children learn to use new languages, practice motor skills, and eye contact (Iswinarti, 2014; Lefebvre & Strain, 1989; Mundy, Sigman, Ungerer, & Sherman, 1987). Teaching social skills is also done with socio drama activities using scripts that have been prepared by researchers. Sociodrama is considered more complex compared to ordinary play. Children practice cognitive, social, and language together. Forms of the story played are, among others, pet shops, magic shows, and carnivals (Goldstein & Cisar, 1992).

Different from classical research, contemporary research uses more varied media to support the implementation of treatments. The use of technology in developed countries has been carried out. In the Netherlands, studies are using NAO robots to improve the ability of autistic children to cooperate with others (Huskens et al., 2015). There are also the uses of Social Tools and Rules for Teens/START socialization

intervention when interacting (Ko et al., 2019), mock games and drama games with rooms that have been modified to resemble the original (Beadle-Brown et al., 2018; Leaf et al., 2017), and self-modeling videos as well as superhero videos (Boudreau & Harvey, 2013; Buggey, 2012; Radley et al., 2014). The development of an increasingly advanced era makes the media used during the treatment more varied. Currently, the use of video is easy to do and does not need to spend a lot of money. Children can use it by themselves as models in the video. Besides, the video can record every step of the treatment well (Buggey et al., 2011).

**Setting.** The choice of setting for implementing treatments is also an important strategy in achieving research objectives. The setting of place selection can help researchers to increase children's interest in participating in activities so that they feel happy. In addition, academic settings are often chosen by researchers to practice children's abilities in other fields such as mathematics, language, writing, and motor skills (Banda et al., 2010; Koegel et al., 2012).

In improving social competence, classical treatments generally intervene indoor / a room that has been provided such as a playroom (Mundy et al., 1987), classrooms (Haring & Lovinger, 1989; Lefebvre & Strain, 1989; Rogers et al., 1986), laboratories (Swaggart et al., 1995), homes and clinics (Thorp, Stahmer, & Schreibman, 1995). The use of limited space is partly done by researchers to be able to easily observe any behavior that occurs in children (Christopher et al., 1991; Goldstein & Cisar, 1992).

In contemporary treatment, the choice of place is quite varied. It is not only done in a room, but it has developed into a direct foray into the community. The location of the implementation can be chosen conditionally, which means the subject is asked directly to the outside environment to interact with unknown people around (Ko et al., 2019), playroom (Boudreau & Harvey, 2013), therapy room designed like a playground (Leaf et al., 2017) or a room designed with various themes such as under the sea, city, forest, and picnic table (Beadle-Brown et al., 2018; Koegel et al., 2012).

**Duration.** Classic treatments have a relatively shorter time. Each activity session conducted ranges from 3-30 minutes a day. Overall, the time spent for the fastest treatment was for two weeks to a longer period of 14-24 months (Lefebvre & Strain, 1989; Mundy et al., 1987; Strain et al., 1985). The average number of sessions conducted in contemporary treatments tends to be more varied. Each session is carried out with a longer duration which ranges from 30 minutes to 2 hours a day (Ko et al., 2019; Leaf et al., 2017). When viewed from the number of sessions, contemporary treatments have short intervention

sessions of 5 to 10 sessions (Huskens et al., 2015) and longer sessions of 15 to 32 sessions (Adibsereshki et al., 2015; Katz & Girolametto, 2013; Leaf et al., 2017). However, there are limitations to the long-term implementation, especially in academic settings, where the main academic activities will limit the implementation time, so researchers may find it difficult to complete treatment (Banda et al., 2010). Research using long-form videos and interesting content can influence responses from children during treatments (Boudreau & Harvey, 2013).

**Effectiveness of Treatments.** Classic treatments are found to be more effective in improving social competence. In this case, the behavioral target of social competence is specific behavior in the development of nonverbal language and communication skills (Mundy et al., 1987; Rogers et al., 1986; Thorp et al., 1995). As well as other more specific behaviors such as greetings, touch, aggressiveness, neglect, sharing, and responses to others (Haring & Lovinger, 1989; Swaggart et al., 1995). The strength of classical research is the more specific treatment goals that facilitate the course of the process and direction of therapy. The behavior to be improved is also simple, given that autistic children have the main characteristic of deficit in social relationships, so it will be very difficult for researchers if they have high targets in developing existing competencies in autistic children.

While contemporary treatment findings show that the treatment used is not significant enough to improve social competence, Beadle-Brown et al. (2018) research used socio drama through participatory games and improvisation with classes designed to be various themes to be insignificant with social skills. However, based on interviews with parents and teachers, they are quite satisfied with the results of the treatments. Also, the use of NAO robots to help and accompany children to play also does not significantly increase the collaboration of ASD children with siblings. Nevertheless, several other studies show significant results. Thompson, McFerran, & Gold (2014) research using family-centered music therapy has succeeded in increasing children's social interaction at home. Then, social skills programs with superhero videos and self-videos can reduce deficits in ASD children in the school environment (Boudreau & Harvey, 2013; Buggey et al., 2011; Radley et al., 2014). This shows that the use of various media or approaches that are used more widely can also be the development of further treatments. But it is necessary to pay attention to whether the media used as a tool is following the needs of the subject or not. Other treatments show better effectiveness. Interventions using tokens can maintain longer treatment results (Lefebvre & Strain, 1989). The child-centered play therapy approach shows a longer treatment effect (Ware Balch & Ray, 2015).

## Conclusion

Based on a review of the results of a literature review by researchers on classical and contemporary treatments in psychology to improve social competence in children with autism, there are some differences in their implementation such as approaches of treatment, others' participation in treatment, settings, duration and the effectiveness of treatments

## References

- Adibsereshki, N., Nesayan, A., Asadi Gandomani, R., & Karimlou, M. (2015). The effectiveness of theory of mind training on the social skills of children with high functioning autism spectrum disorders. *Iranian Journal of Child Neurology*, 9(3), 40–49. <https://doi.org/10.22037/ijcn.v9i3.6890>
- American Psychiatric Association. (2013). *DSM-5* (Fifth Edit). Washington DC: American Psychiatric Publishing.
- Banda, D. R., Hart, S. L., & Liu-Gitz, L. (2010). Impact of training peers and children with autism on social skills during center time activities in inclusive classrooms. *Research in Autism Spectrum Disorders*, 4(4), 619–625. <https://doi.org/10.1016/j.rasd.2009.12.005>
- Beadle-Brown, J., Wilkinson, D., Richardson, L., Shaughnessy, N., Trimmingham, M., Leigh, J... Himmerich, J. (2018). Imagining Autism: Feasibility of a drama-based intervention on the social, communicative and imaginative behavior of children with autism. *Autism*, 22(8), 915–927. <https://doi.org/10.1177/1362361317710797>
- Berard, N., Loutzenhiser, L., Sevigny, P. R., & Alfano, D. P. (2017). Executive function, social emotional learning, and social competence in school-aged boys with autism spectrum disorder. *Canadian Journal of School Psychology*, 32(3–4), 265–281. <https://doi.org/10.1177/0829573517707907>
- Boudreau, J., & Harvey, M. T. (2013). Increasing Recreational initiations for children who have asd using video self-modeling. *Education and Treatment of Children*, 36(1), 49–60. <https://doi.org/10.1353/etc.2013.0006>
- Buggey, T. (2012). Effectiveness of video self-modeling to promote social initiations by 3-year-olds with autism spectrum disorders. *Focus on Autism and Other Developmental Disabilities*, 27(2), 102–110. <https://doi.org/10.1177/1088357612441826>
- Buggey, T., Hoomes, G., Sherberger, M. E., & Williams, S. (2011). Facilitating social initiations of preschoolers with autism spectrum disorders using video self-modeling. *Focus on Autism and Other Developmental Disabilities*, 26(1), 25–36. <https://doi.org/10.1177/1088357609344430>
- 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. <https://doi.org/10.1016/j.rasd.2016.03.010>
- Chiang, C. H., Chu, C. L., & Lee, T. C. (2016). Efficacy of caregiver-mediated joint engagement intervention for young children with autism spectrum disorders. *Autism*, 20(2), 172–182. <https://doi.org/10.1177/1362361315575725>
- Christopher, J. S., Hansen, D. J., & Macmillan, V. M. (1991). Effectiveness of a peer-helper intervention to increase children's social interactions: generalization, maintenance, and social validity. *Behavior Modification*, 15(1), 22–50. <https://doi.org/10.1177/01454455910151002>
- Goldstein, H., & Cisar, C. L. (1992). Promoting interaction during sociodramatic play: Teaching scripts to typical preschoolers and classmates with disability. *Journal of Applied Behavior Analysis*, 25(2), 265–280.
- Haring, T. G., & Lovinger, L. (1989). Promoting social interaction through teaching generalized play initiation responses to preschool children with autism. *Journal of the Association for Persons with Severe Handicaps*, 14(1), 58–67. <https://doi.org/10.1177/154079698901400107>
- Howlin, P., & Magiati, I. (2017). Autism spectrum disorder: Outcomes in adulthood. *Current Opinion in Psychiatry*, 30(2), 69–76. <https://doi.org/10.1097/YCO.0000000000000308>
- Huskens, B., Palmen, A., Van der Werff, M., Lourens, T., & Barakova, E. (2015). Improving collaborative play between children with autism spectrum disorders and their siblings: the effectiveness of a robot-mediated intervention based on lego ® therapy. *Journal of Autism and Developmental Disorders*, 45(11), 3746–3755. <https://doi.org/10.1007/s10803-014-2326-0>
- Iswinarti. (2014). Bermain dan kompetensi sosial anak : Studi meta-analisis. *Jurnal Sains Dan Praktik Psikologi*, 2(3), 219–225.
- Kasari, C., Gulsrud, A. C., Wong, C., Kwon, S., & Locke, J. (2010). Randomized controlled caregiver mediated joint engagement intervention for toddlers with autism. *Journal of Autism and Developmental Disorders*, 40(9), 1045–1056. <https://doi.org/10.1007/s10803-010-0955-5>
- Katz, E., & Girolametto, L. (2013). Peer-mediated intervention for preschoolers with asd implemented in early childhood education settings. *Topics in Early Childhood Special Education*, 33(3), 133–143. <https://doi.org/10.1177/0271121413484972>
- Ke, F., Whalon, K., & Yun, J. (2018). Social skill interventions for youth and adults with autism spectrum disorder: A systematic review. In *Review of Educational Research* (Vol. 88). <https://doi.org/10.3102/0034654317740334>
- Ko, J. A., Miller, A. R., & Vernon, T. W. (2019). Social conversation skill improvements associated with the social tools and rules for teens program for adolescents with autism spectrum disorder: results of a randomized controlled trial. *Autism*, 23(5), 1224–1235. <https://doi.org/10.1177/1362361318808781>
- Koegel, L. K., Vernon, T. W., Koegel, R. L., Koegel, B. L., & Paullin, A. W. (2012). Improving social engagement and initiations between children with autism spectrum disorder and their peers in inclusive settings. *Journal of Positive Behavior Interventions*, 14(4), 220–227. <https://doi.org/10.1177/1098300712437042>
- Kohler, Frank W., Strain, Phillip s., Hoyson, M., Davis, L., Donina, Wendy M., & Rapp, N. (10949BC). Using a group-oriented contingency to increase social interaction between children with autism and their peers. *Behavior Modification*, 19(1), 183-20510–20532. <https://doi.org/10.1177/07399863870092005>
- Leaf, J. B., Leaf, J. A., Milne, C., Taubman, M., Oppenheim-Leaf, M., Torres, N... Autism Partnership Foundation. (2017). An evaluation of a behaviorally-based social skills group for individuals diagnosed with autism spectrum disorder. *Journal of Autism and Developmental Disorders*, 47(2), 243–259. <https://doi.org/10.1007/s10803-016-2949-4>
- Lefebvre, D., & Strain, P. S. (1989). Effects of a group contingency on the frequency of social interactions among autistic and nonhandicapped preschool children: Making Ire efficacious. *Journal of Early Intervention*, 13(4), 329–341. <https://doi.org/10.1177/105381518901300405>
- Lever, A. G., & Geurts, H. M. (2016). Age-related differences in cognition across the adult lifespan in autism spectrum disorder. *Autism Research*, 9(6), 666–676. <https://doi.org/10.1002/aur.1545>
- Locke, J., Ishijima, E. H., Kasari, C., & London, N. (2010). Loneliness, friendship quality and the social networks of adolescents with high-functioning autism in an inclusive school setting. *Journal of Research in Special Educational Needs*, 10(2), 74–81. <https://doi.org/10.1111/j.1471-3802.2010.01148.x>
- Magiati, I., Tay, X. W., & Howlin, P. (2014). Cognitive, language, social and behavioural outcomes in adults with autism spectrum disorders: A systematic review of longitudinal follow-up studies in adulthood. *Clinical Psychology Review*, 34(1), 78–86. <https://doi.org/10.1016/j.cpr.2013.11.002>
- Meek, S. E., Robinson, L. T., & Jahromi, L. B. (2012). Parent-child predictors of social competence with peers in children with and without autism. *Research in Autism Spectrum Disorders*, 6(2), 815–823. <https://doi.org/10.1016/j.rasd.2011.11.001>
- Mundy, P., Sigman, M., Ungerer, J., & Sherman, T. (1987). Nonverbal communication and play correlate of language development in autistic children. *Journal of*

- Autism and Developmental Disorders*, 17(3), 349–364. <https://doi.org/10.1007/BF01487065>
- Oke, N. J., & Schreibman, L. (1990). Training social initiations to a high-functioning autistic child: Assessment of collateral behavior change and generalization in a case study. *Journal of Autism and Developmental Disorders*, 20(4), 479–497. <https://doi.org/10.1007/BF02216054>
- Pekdogan, S., & Kanak, M. (2016). A study on social competence and temperament of pre-school children's. *Journal of Education and Learning*, 5(4), 133. <https://doi.org/10.5539/jel.v5n4p133>
- Radley, K. C., Ford, W. B., Battaglia, A. A., & McHugh, M. B. (2014). The effects of a social skills training package on social engagement of children with autism spectrum disorders in a generalized recess setting. *Focus on Autism and Other Developmental Disabilities*, 29(4), 216–229. <https://doi.org/10.1177/1088357614525660>
- Rogers, S. J., Herbison, J. M., Lewis, H. C., & Pantone, J. (1986). An approach for enhancing the symbolic, communicative, and interpersonal functioning of young children with autism or severe emotional handicaps. *Journal of Early Intervention*, 10(2), 135–148. <https://doi.org/10.1177/105381518601000205>
- Strain, P. S., Hoyson, M., & Jamieson, B. (1985). Normally developing preschoolers as intervention agents for autistic-like children: effects on class deportment and social interaction. *Journal of Early Intervention*, 9(2), 105–115. <https://doi.org/10.1177/105381518500900202>
- Swaggart, B. L., Gagnon, E., Bock, S. J., Eales, T. L., Quinn, C., Myles, B. S., & Simpson, R. L. (1995). Using social stories to teach social and behavioral skills to children with autism. *Focus on Autistic Behavior*, 10(1), 1–16. <https://doi.org/10.1177/108835769300800301>
- Thompson, G. A., McFerran, K. S., & Gold, C. (2014). Family-centered music therapy to promote social engagement in young children with severe autism spectrum disorder: A randomized controlled study. *Child: Care, Health and Development*, 40(6), 840–852. <https://doi.org/10.1111/cch.12121>
- Thorp, D. M., Stahmer, A. C., & Schreibman, L. (1995). Effects of sociodramatic play training on children with autism. *Journal of Autism and Developmental Disorders*, 25(3), 265–282. <https://doi.org/10.1007/BF02179288>
- Ware Balch, J., & Ray, D. C. (2015). Emotional assets of children with autism spectrum disorder: A single-case therapeutic outcome experiment. *Journal of Counseling and Development*, 93(4), 429–439. <https://doi.org/10.1002/jcad.12041>
- Whalon, K. J., Conroy, M. A., Martinez, J. R., & Werch, B. L. (2015). School-based peer-related social competence interventions for children with autism spectrum disorder: a meta-analysis and descriptive review of single case research design studies. *Journal of Autism and Developmental Disorders*, 45(6), 1513–1531. <https://doi.org/10.1007/s10803-015-2373-1>