

Effective Comparison of Interventions by Involving Parents or Peers in Improving Social Competence of Autism Children

Ulwiyyatul Hidayat
University of Muhammadiyah Malang
Ulwiyyatulhidayat4@gmail.com

Aisyah Putri Rawe Mahardika
University of Muhammadiyah Malang
Putriimahardika@gmail.com

Musdalifa
University of Muhammadiyah Malang
Musdalifalhnw@gmail.com

Abstract: *This article presents a literature review related to therapies or interventions used to improve social competence of children with autism spectrum disorder (ASD). Children with autism disorder have problems in their social environment where children cannot communicate or interact socially. This study reviews 20 international journals covering interventions used by involving parents, interventions involving peers, analysis of both methods, and conclusions. The interventions or therapies used vary, with the therapeutic setting taking place at home, at school, or at the place of professional therapy by involving parents and peers in the intervention. The design used in this research were single experiments and group experiments. The results of this literature review indicate that interventions that involve peers are more effective than interventions that involve parents in increasing the social competence of children with autism spectrum disorder because in peer intervention, they are directly involved. This research also influences further research, especially those conducted in Indonesia.*

Key word: *systematic review, interventions involving family, interventions involving peers, autism spectrum disorder*

Introduction

Social competence is an individual's ability built since the very young age. It can include interaction with parents, peers, and teachers. Individuals who need to develop their social competence are those having difficulty in interacting with others, while individuals who are able to develop more social competence are individuals who have good interactions with others. Therefore, social competence becomes important in the development of children (Samrud-Clíkeman, 2007). Some aspects contained in social competence are the ability to build interpersonal relationships, the ability to develop identity and the desire to become citizens who are caring and responsible in society. Children's interpersonal relationships can be developed through parents, peers, and teachers. It aims to improve children social competence and positive life (Ma, 2012).

Mental disability children may be related to cognitive delay, language, motor skills, difficulty in establishing friendships in the environment, and difficulty developing social competence. These problems are often found in children with autism spectrum disorder (Samrud-clíkeman, 2007). Davey (2014) suggested that autism disorders are associated with damage in the developmental area. Children with autism disorders have problems in the development process, social disorders (social interaction), mental retardation, emotions, lack of language and

communication skills, and the development of harmful behaviors. Children with autism disorder tend to have problems with social interaction. Therefore, the child remains isolated without proper intervention.

In 1943, psychiatrist Kenner first identified autism syndrome at Harvard. Initially, autism syndrome was considered an early onset of schizophrenia in adults. However, with much evidence, it was identified that autism and schizophrenia are two different things. Children with autism do not experience delusions and hallucinations, and autism disorders can be identified in the first months of the child's age. Meanwhile, individuals can be called schizophrenic if they experience hallucinations and delusions (Davison, Neale, & Ann, 2012). This disorder is rarely found in the general population. In 10,000 births, it only occurs in 2 to 5 babies or 0.05% of the number of births. However, there has been a significant increase in this disorder. In 2018, UNESCO reported that autism sufferers reached 35 million inhabitants. While in Indonesia alone, in 2009, the number of autism reached 150-200 thousand people, in 2010 it was estimated to reach 112 thousand people, and in 2015 the number of autism sufferers reached 12,800. Autism disorders are more common in boys than girls (Nugraheni, 2016).

Some interventions that have been carried out in improving the social competence of children with autism spectrum disorder include interventions that involve

parents and peers. Stichter, et al. (2010) suggested that using social competence intervention (SCI) and involving parents in the intervention proved to increase the ability of social competence in children with autism. Social competence intervention is related to the child's ability to recognize facial expressions, various ideas, communicate with each other, understand feelings, emotions, and how to solve problems that are designed systematically. In addition to involving parents in interventions to improve children's social competence, peers are also important indicators in increasing social competence of children with autism.

Based on a literature review using 37 literatures related to interventions to improve social competence in children with autism disorders and involving peers in their interventions, it was found that friends have an important role in improving social competence of children with impaired autism, especially in schools. Several articles have been written about interventions involving parents or peers. However, of the two methods of intervention, there is no explanation related to the comparison of the effectiveness of the two methods. Therefore, this literature review aims to compare the effectiveness of the intervention method by involving parents and by involving peers (Whalon, Conroy, Martinez, & Werch, 2015).

Intervention by Involving Parents

Among ten research involving parents in interventions to improve social competence of autism children, there are eight studies that involved parents, but not directly. More parents are only involved as observers without having direct interaction with children. This is in line with research conducted by Minne & Semrud-Clikeman (2011). Another research by Won et al. (2017) includes socio-drama interventions in improving social competence where parents act as observers and are not directly involved in the interventions. The research used context-based social competence training (CBT-CSCA) in improving social competence. The results showed that the provision of training to parents on how to improve social competence in children with autism had significant influence. Other research found that interventions that can be used to increase social competence in children with autism are interventions using robots. At the intervention, the parent are present but not directly involved to do the therapy, but merely observe the child's behavior (Giannopulu & Pradel, 2010).

Leaf et al. (2016) used Social Skills interventions (SSGs) and involved parents, where parents were asked to observe each intervention session conducted by the child. Parents in the intervention do not play a direct role. Beadle-brown et al. (2017) conducted a research on autism children to improve social competence by using the drama method and involving parents as observers of

children's activities, and then parents were asked to report to the tarpaulins related to child development. Guli et al. (2013) used the Social Competence Intervention Program (SCIP) with creative drama programs which can be observed in playgrounds, in sports classes, and school canteens. This intervention involves the parent indirectly as an observer, who then reports the results of observations related to the child's change to the therapist.

Mckown et al. (2013) conducted a research using social emotional learning (SCL) and included awareness of non-verbal cues, empathy, language, and the ability to interact socially. This intervention involves parents and teachers as observers and reports on changes in children. Also, Simut et al. (2015) conducted a research using robots as a medium for children to interact. Children were asked to make fruit salad together with robots, then parents were asked to observe the activities carried out by the children.

The aforementioned interventions are involving parents, but not directly. In this case, parents are asked to observe the child's behavior outside of the intervention time and fill in a feedback form to see the child's development. Therefore, intervention with this method becomes less effective in increasing the social competence of children with autism. Whereas, interventions involving parents directly are research proposed by Pickles et al. (2016) by using parent-mediated social communication therapy for young children with autism (PACT) designed to involve parents in their intervention. Thompson et al. (2013) used Family-centered music therapy (FCMT) as an intervention that can improve the social competence of children with autism by directly involving parents. The purpose of this music therapy is to create a reciprocal interaction relationship between children and parents in music-making activities, such as songs, improvisation, and movement to music.

Intervention by Involving Peers

Based on previous studies, it was shown that interventions involving peers in increasing social competence of children with autism are interventions that involve children directly in the intervention. This is in line with research conducted by Vernon et al. (2016), who stated in his research that the program (The START) involving peers in their interventions improve social competence in children with autism. Thiemann-bourque et al. (2016) in their research using the PECS (Picture Exchange Communication System) designed for all activities of children in school found that using the PECS method, children can communicate and interact with peers at school.

Gal et al. (2016) conducted a research using Collaborative Puzzle Game (CPG) and Collaborative Collage (CC) techniques. This research involved peers in

making collages. The results revealed this intervention was effective in increasing social competence in children with autism. Amin & Owein (2013) used social story techniques and group work and involved peers in the intervention. The results showed that interventions with group settings became effective in increasing the social competence of children with autism. Corbett et al. (2015) suggested that one method that can be used to improve the social competence of children with autism is to use SENSE theater intervention and involve peers in their interventions. This method is also appropriate to improve the social competence of children with autism disorders.

Visovsky et al. (2010) used social competence intervention (SCI) in their research and found that interventions involving peers can improve the social competence of children with autism disorders, such as in the school environment (when studying and when shopping at the canteen). Prendeville et al. (2006) suggested that involving peers in increasing social competence of autistic children is very helpful because children with autism disorders need direct support to facilitate social interaction, communication and play.

Cotugno (2009) suggested that the social competence of autism children will be increased if the intervention involves peers. In addition, interventions using peers can reduce anxiety in social situations, the desire to interact with peers, and the desire to change. Ben-sasson et al. (2013) used Collaborative Puzzle Games (CPG) by involving peers in their interventions, where children are taught to solve puzzles in groups. In addition to involving peers, this study also involved parents, who were only asked to fill in the Social Responsiveness Scale (SRS) questionnaire without being directly involved in the intervention.

Interventions used to improve social skills in children with autism are involving peers and are carried out in group settings, namely learning and playing together, including writing, coloring, playing by sorting several objects, and playing dice. But before the intervention, the children and the peers are given training to communicate. This intervention is carried out in class for 10 to 15 minutes for each activity (Banda et al., 2010).

Analysis

The findings related to interventions involving parents and those involving peers in improving social competence of children with Autism Spectrum Disorder (ASD) disorders show that interventions involving peers are more effective than those involving parents. This is far more effective because in these interventions, children are directly involved. However, parents are only involved as observers of children's activities at home. Samrud-Clikeman (2007) suggested that social competence is the ability to interact with one another,

including teachers, parents, siblings, and peers. Difficulties in interacting with others make individuals have fewer opportunities to develop their social competence. Whereas, individuals who have no difficulty in interacting with others can easily develop their social competence. Therefore, in improving social competence, one must use direct interaction methods.

Ma (2012) suggested that several aspects contained in social competence are the ability to build interpersonal attachment relationships within groups, the ability to develop self-identity, and the desire to be responsible. The development of interpersonal relationships can be done with parents, teachers, relatives, peers, and the community. It aims to make children live positively and improve their social competence. The concept of social competence often includes additional constructs, such as social skills, social communication, and interpersonal communication. Social skill is a behavior that can be repeated and directed towards goals. Social interaction assumes that goals can be achieved through interactions with others using language and nonverbal communication (Samrud-Clikeman, 2007). This skill is also considered directed at the goal. In addition to behavior, social competence requires correct perceptions about social interaction. Another study was carried out using LEGO and involved peers. Children in this intervention are asked to make a building from LEGO in groups without seeing visual instructions (Andras, 2012).

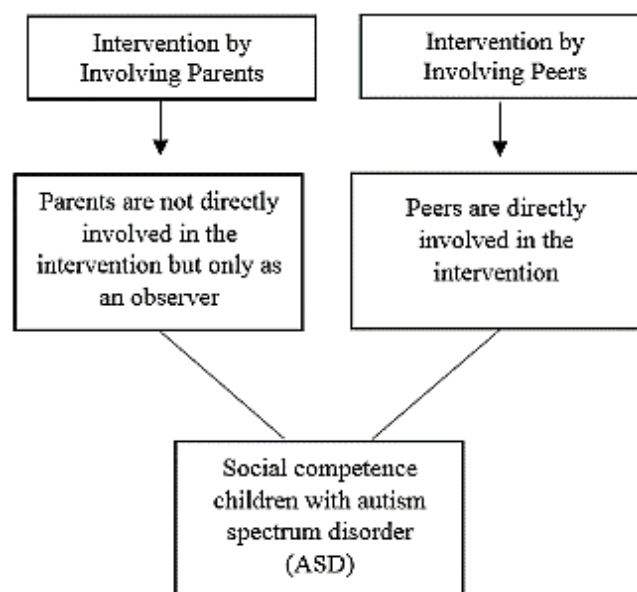


Figure 1. Comparison of interventions by involving parents or peers in improving social competence of children with autism

Conclusion

In conclusion, some of the studies and interventions used to improve the social competence of children with autism spectrum disorder by involving peers in their intervention are far more effective than involving parents who are only observers. Social competence can increase if there is interaction and direct communication. In addition, children with autism disorder have a slow level of security so presenting individuals directly in the process of direct interaction and communication will make the children understand things more easily. Therefore, it is crucial to involve individuals directly in carrying out interventions to improve the social competence of children with Autism Spectrum Disorder.

References

- Amin, N. A., Oweini, A. (2013). social competence intervention in autistic spectrum disorders (asds) - a case study. *International Journal Of Special Education*, 28 (3), 104-12.
- Andras, m. (2012). the value of lego ® therapy in promoting social interaction in primary- aged children with autism. *good autism practice*.
- Beadle-brown, j., wilkinson, d., richardson, l., shaughnessy, n., trimingham, m., leigh, j., himmerich, j. (2017). imagining autism : feasibility of a drama-based intervention on the social , communicative and imaginative behaviour of children with autism. *autism*, <https://doi.org/10.1177/1362361317710797>
- Ben-sasson, a., lamash, l., & gal, e. (2013). to enforce or not to enforce? the use of collaborative interfaces to promote social skills in children with high functioning autism spectrum disorder. *autism*, 7(5), 608–622. <https://doi.org/10.1177/1362361312451526>
- Corbett, b. a., key, a. p., qualls, l., fecteau, s., newsom, c., coke, c. (2015). improvement in social competence using a randomized trial of a theatre intervention for children with autism spectrum disorder. *journal of autism and developmental disorders*. <https://doi.org/10.1007/s10803-015-2600-9>
- Cotugno, a. j. (2009). social competence and social skills training and intervention for children with autism spectrum disorders. *j autism dev disord*, 39, 1268–1277. <https://doi.org/10.1007/s10803-009-0741-4>
- Davey, g. (2014). *psychopathology research, assessment, and treatment in clinical psychology (second edition)*. british: british psychology society.
- Davison, g. c., neale, j. m., & ann, m. k. (2012). *psikologi abnormal*. jakarta: rajawali pers.
- Gal, e., lamash, l., bauminger-zviely, n., zancanaro, m., & weiss, p. l. (2016). using multitouch collaboration technology to enhance social interaction of children with high-functioning autism. *physical and occupational therapy in pediatrics*, 36(1), 46–58. <https://doi.org/10.3109/01942638.2015.1040572>
- Giannopulu, i., & pradel, g. (2010). multimodal interactions in free game play of children with autism and a mobile toy robot. *neurorehabilitation*, 27, 305–311. <https://doi.org/10.3233/nre-2010-0613>
- Guli, l. a., semrud-clikeman, m., lerner, m. d., & britton, n. (2013). the arts in psychotherapy social competence intervention program (scip) : a pilot study of a creative drama program for youth with social difficulties. *the arts in psychotherapy*, 40(1), 37–44. <https://doi.org/10.1016/j.aip.2012.09.002>
- Leaf, j. b., leaf, j. a., milne, c., taubman, m., norma, m. o., donna, t., partnership, a. (2016). an evaluation of a behaviorally based social skills group for individuals diagnosed with autism spectrum disorder. *journal of autism and developmental disorders*, 0(0), 0. <https://doi.org/10.1007/s10803-016-2949-4>
- Ma, h. k. (2012). social competence as a positive youth development construct, a conceptual review. *the scientific world journal*, 2012. <https://doi.org/10.1100/2012/287472>
- Mckown, c., gumbiner, l. m., russo, n. m., lipton, m., & mckown, c. (2013). social-emotional learning skill , self-regulation , and social competence in typically developing and clinic- referred children social-emotional learning skill , self-regulation , and social competence in typically developing and clinic-referred children. *journal of clinical child & adolescent psychology*, 36 (6), 858-871. <https://doi.org/10.1080/15374410903258934>
- Minne, e. p., & semrud-clikeman, m. (2011). a social competence intervention for young children with high functioning autism and asperger syndrome : a pilot study. *autis*, 0(0), 1-17. <https://doi.org/10.1177/1362361311423384>
- Pickles, a., couteur, a. le, leadbitter, k., salomone, e., cole-fletcher, r., tobin, h., green, j. (2016). parent-mediated social communication therapy for young children with autism (pact) : long-term follow-up of a randomised controlled trial. *the lancet*, 6736(16). [https://doi.org/10.1016/s0140-6736\(16\)31229-6](https://doi.org/10.1016/s0140-6736(16)31229-6)
- Prendeville, j., ed, d., prelock, p. a., ph, d., & unwin, g. (2006). peer play interventions to support the social competence of children with autism spectrum disorders. *seminars in speech and language*, 1(212), 32–46. doi,10.1055/s-2006-932437
- Samrud-clikeman, m. (2007). *social competence in children*. usa: michigan state university.
- Simut, r. e., vanderfaellie, j., peca, a., & perre, g. van

- de. (2015). children with autism spectrum disorders make a fruit salad with probio , the social robot : an interaction study. *journal of autism and developmental disorders*. 46,113–126, <https://doi.org/10.1007/s10803-015-2556-9>
- Thiemann-bourque, k., brady, n., & mcguff, s. (2016). picture exchange communication system and pals, a peer-mediated augmentative and alternative communication intervention for minimally verbal preschoolers with autism. *journal of speech, language, and hearing research*, 59, 1133–114, doi: 10.1044/2016_jslhr-l-15-0313
- Thompson, g. a., mcferran, k. s., & gold, c. (2013). family-centred 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. doi,10.1111/cch.12121840–852
- Vernon, t. w., miller, a. r., ko, j. a., wu, v. l., & miller, a. r. (2016). social tools and rules for teens (the start program): program description and preliminary outcomes of an experiential socialization intervention for adolescents with autism spectrum disorder. *journal of autism and developmental disorders*. <https://doi.org/10.1007/s10803-016-2715-7>
- Visovsky, k., schmidt, c., randolph, j., schultz, t., & gage, n. (2010). social competence intervention for youth with asperger syndrome and high-functioning autism : An Initial Investigation. *J Autism Dev Disord*, 1067–1079. <https://doi.org/10.1007/s10803-010-0959-1>
- 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. *J Autism Dev Disord*, 1513–1531, <https://doi.org/10.1007/s10803-015-2373-1>
- Won, R., Chan, S., Nga, C., Leung, W., Ching, D., & Ng, Y. (2017). Validating a culturally-sensitive social competence training programme for adolescents with asd in a chinese context : an initial investigation. *Journal of Autism and Developmental Disorders*, 0(0), 0. <https://doi.org/10.1007/s10803-017-3335-6>