

Effect of Social Skill Training on Social Interaction in Children with Autism

Spectrum Disorder: Literature Review

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Abstract

Background: Autism is a developmental disorder characterized by impaired language, communication, social interactions, and repeated interactions. Children with autism also have low social awareness and cannot understand or let go of other people's feelings. This causes autistic children to not empathize with others who are essential in social relations, so programmed therapy is needed to train social skills in children with autism spectrum disorder (ASD) through social skills training (SST).

Objective: To study the effects of SST therapy on the social interactions of children with autism spectrum disorder (ASD).

Methods: The method in this paper is a literature review. Search for research articles using a database of sciences from Science Direct, Scopus, ProQuest, Wiley Online Library, EBSCOhost, Sage Journal, and ClinicalKey. The inclusion criteria for this journal study are human research, discussion in English, free full text, and publications between 2012 and 2019. A total of 10 relevant articles are discussed in this literature review.

Results: SST therapy for children with ASD focuses on behavioral and social learning, where children are taught social skills such as making eye contact, starting conversations, and establishing cooperation with others.

Conclusion: The application of SST therapy to children with ASD can improve their adaptability to other forms of socialization and social skills and improve their daily lives.

Keywords: autism spectrum disorder, social interaction, social skills training



INTRODUCTION

Autism is a developmental disorder characterized by disturbances in language, communication, social interaction, and repetitive behavior (Wang et al., 2018). Autism or autism spectrum disorder (ASD) is a persistent difficulty in social interaction and the presence of patterns of behavior, interests, or activities that limit or repeated (Maye, Kiss, & Carter, 2017). Children with autism have several distinctive characteristics, namely hyperactivity, obsessive behavior, or self-harm behavior (Sitimin, Fikry, Ismail, & Hussein, 2017). Children with autism seem disinterested in their peers and tend to avoid social interactions (Davis & Carter, 2014). According to the Centers for Disease Control and Prevention (2016), 1 in 68 children is diagnosed with autism, where boys suffer from autism 4.5 times more than girls. In Indonesia, the prevalence of autism is estimated to be close to a number that is not much different (National Center of Biotechnology Information, 2012).

Among 10-15% of autistic children, the level of intelligence is average or above average while 25% are at the borderline to mental retardation and the rest experience moderate to severe mental retardation (Hoogsteen & Woodgaet, 2013). As many as 85% of autistic children are born with limited cognitive and adaptive abilities. These limitations make children with autism need help in their lives. With heavy dependency, autistic children need help throughout their lives (Karst & Van Hecke, 2012). According to a review of psychopathology, the neurochemical system in autism shows an increase in serotonin in the blood and cerebrospinal fluid. In addition, post-mortem examination of autistic patients shows that the amygdala and hippocampus are underdeveloped, both of which are part of the limbic system, which plays a role in emotion regulation, aggression, sensory input, and learning processes. Genetic factors in several studies have also been mentioned as having a role in the incidence of autism (Volkmar et al., 2007).

Children with autism in their social interactions show behaviors such as minimal eye contact, flat affect, unable to play with peers, unable to feel what other people think, and lack of social relationships (unable to socialize) as well as lack in reciprocal way in adapting to the environment and emotional involvement. Children with autism also have less social awareness, so they cannot understand other people's non-verbal expressions or express their feelings. This causes autistic children to be unable to empathize with other people, which is an essential component in social interaction. Therefore, a therapy program is needed to train social skills in ASD children through social skill training (SST). SST in ASD children aim to improve self-control and social skills in daily activities (Yusuf, 2014). Social skill training (SST) is an intervention with behavior modification techniques based on the principles of role-playing, practice, and feedback to improve clients' ability to solve problems, it has been used among clients with depression, schizophrenia, clients with behavioral disorders having difficulty interacting, and clients with social phobias (Stuart, 2016; Vacarolis, 2010). Through this literature review study, the authors are interested in studying further the effect of SST on the social interaction of children with ASD.

METHODS

The method in this paper is a literature review. Search for articles using an electronic database there were Science Direct, Scopus, ProQuest, Wiley Online Library, EBSCOhost, Sage Journal, and ClinicalKey. The inclusion criteria for this journal review were research on humans in English, free full text, and the publication range between 2012-2019. The keywords used are “((social interaction) AND (child OR children) AND (autism OR autism spectrum disorder) AND (social skill training OR SST)). The search results found 216 related articles,

which were then selected by title and reviewed by reading the abstract. Twenty-two relevant articles were found. The ten articles discussed in this literature review are relevant and are available for free full text.

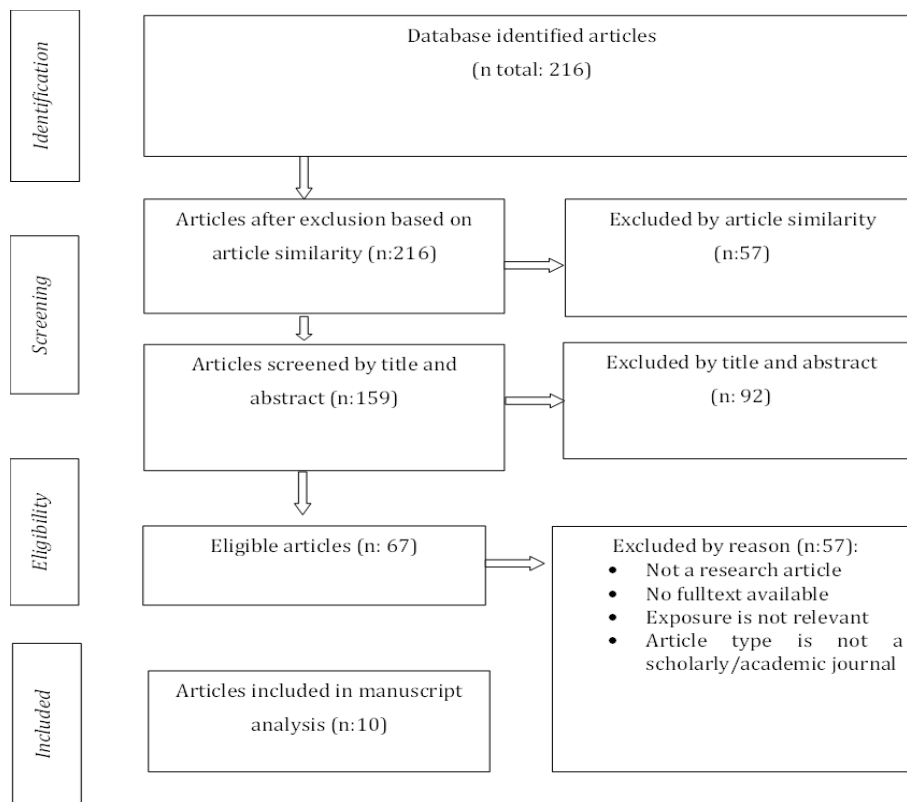


Figure 1. Article selection process

RESULTS

The following is a study related to Social Skill Training (SST) interventions in children with ASD:

Table 1. Treatment of SST in children with ASD

Author (year)	Types of Research	Result
(Choque Olsson etal., 2017)	<i>Randomised controlled trial (RCT)</i>	Social Skill Training (SST) in children and adolescents with autism spectrum disorder (ASD) positively impacts adaptive functioning abilities. Adolescents with ASD have greater motivation to develop social skills than children with ASD, who tend to be needed more support; this is related to the maturation and development of a cognitive function.

(Deckers, Muris, Roelofs, & Arntz, 2016)	<i>Experiment with control group design</i>	Social anxiety, ADHD symptoms, and social interaction motivation influence the effect of SST on children with ASD. However, SST is an effective intervention in children with ASD to improve social skills and can be applied daily clinical practice days.
(Radley et al., 2015)	<i>Experimental clinical study</i>	School-based SST in school children with ASD can improve social functioning. School-based SST has the advantage of having peers as a stimulus to train social skills in a natural environment.
(Gunning et al., 2019)	<i>Systematic review</i>	Generalizing intervention outcomes is significant for social skills training for children with ASD for various reasons. The development of social skills enhances social competence. This wide-ranging, complicated skill set enables children to engage with others, forge friendships and relationships, and negotiate challenging social contexts.
(Floress, Zoder-Martell, & Schaub, 2017)	<i>A multiple-baseline across behaviors design</i>	SST combined with relaxation training (RT) in school children with ASD shows an increase in social skills and a decrease in anxiety. SST and RT, such as deep breathing, can help children with ASD to be calmer (relax), an adaptive skill that becomes the target of therapy.
(Dekker, Nauta, Mulder, Timmerman, & de Bildt, 2014)	<i>Randomised controlled trial</i>	SST-PTI is an SST that involves parents and teachers in the process (SST with Parent & Teacher involvement). SST-PTI in children with ASD can improve abilities and adaptive functions such as socialization and other social skills in everyday life. Parents and teachers are involved in order able to support and assist children in doing social skills taught during the training.
(Freitag et al, 2013)	<i>Randomised controlled trial</i>	Social skill training (SST) has been recommended as a treatment in high-functioning autism spectrum disorder. Compared to treatment as usual, SST can improve social responsiveness, improvement of appropriate social responding, an increase of social motivation and social initiations, and reduction of interfering behaviors and promotion of skill generalization.

(McKenna, Flower,&Adamson ,2016)	<i>Systematic review</i>	Children with emotional and behavioral disorders are at risk of experiencing social functioning barriers, including children with ASD. According to a systematic study, SST in this risk group effectively improves social skills.
(Deckers et al, 2014)	<i>Experimental clinical study</i>	The desire for social interaction (social interaction desire) in children with ASD affects the outcome of SST therapy.
(Chang et al., 2012)	<i>Randomised controlled trial</i>	SST is less effective in being applied to children with ASD and comorbid ADHD because it is difficult to focus attention on ADHD, which can interfere with the process of learning social skills, hyperactive behavior can disrupt groups, and impulsivity can hinder them from applying their abilities.

DISCUSSION

Children with ASD experience problems controlling behavior in the form of hyperactivity, aggression, self-harm behavior, and withdrawal behaviors such as depression and anxiety (Watson, Hayes, Radford-Paz, & Coon, 2013). The results of Floress et al. (2017)'s research regarding SST combined with relaxation training (RT) can be applied to overcome anxiety responses that appear in children with ASD.

SST in children with ASD can also be carried out through school-based programs by providing a natural environment with peers as a stimulus (Radley et al., 2015). This research illustrates the benefits of school on the development of autistic children. This is supported by previous research, which states that autistic children who attend inclusive schools show an improvement in behavior (Koegel, 2011). Even so, there are some obstacles in the learning process for autistic children because of the lack of cooperative skills and hyperactive behavior. SST can be the primary treatment option for conditions because, in SST, children with ASD will be trained through behavioral and social learning, where children are taught social skills such as making eye contact, starting conversations, and establishing cooperation with others (Freitleg et al., 2013).

Research states that parents of children with ASD are at risk of experiencing

psychosocial stress from depression, anger, deep sadness, rejection of conditions children, and self-blame. Parents of children with autism also have a lower quality of life than parents of typical children (Neff & Faso, 2014). The ability of parents to adapt is directly proportional to the ability to care for children and overcome problems in caring for them. On the other hand, it can also strengthen the marriage bond (Doron & Sharanbany, 2013). This explains the importance of parental involvement in caring for children with ASD, including in implementing SST therapy programs. A RCT study on SST therapy programs involving parents and teachers in the process (SST with Parent & Teacher Involvement), suggested that SST-PTI in children with ASD can improve adaptive functioning abilities such as socialization and other social skills in everyday life (Dekker, Nauta, Mulder, Timmerman, & de Bildt, 2014).

Meanwhile, according to a study of social motivation theory in autism, social problems in ASD children come from low interest or desire to interact with other people, so the desire for social interaction (desires for social interaction) is an essential factor influencing the effects of SST therapy. ASD children with a low desire to engage in social interaction will be less motivated to participate in SST therapy and vice versa, so the positive impact of SST will be felt more in ASD children who have a strong desire for social interaction (Dekkers et al., 2014).

CONCLUSION

Autism is a developmental disorder characterized by disturbances in aspects of language, communication, social interaction, and repetitive behavior. Children with ASD experience problems controlling behavior in the form of hyperactivity, aggression, self-harm behavior, and withdrawal behavior such as depression and anxiety. SST therapy for children with ASD focuses on behavioral and social learning, where children are taught social skills such as making eye contact, starting conversations, and establishing cooperation with others. The application of SST therapy in children with ASD can improve adaptive function abilities such as socialization and other social skills in daily life.

Health workers, especially nurses, can understand the characteristics of clients, especially clients with special groups, such as those with autism, so that they can provide appropriate therapy programs according to client needs based on evidence-based nursing practice. An overview of evidence-based nursing practice in the form of nursing interventions

that are successfully used in children with autism is provided through analysis of the literature review's findings, including social skill training (SST). SST in autistic children not only focuses on teaching social-based rules, social understanding, and social practice skills, but it also includes executive function training, anger management techniques, behavioral and cognitive flexibility training, and other techniques to combat stereotyped behaviors and intense special interests that obstruct social interactions. Thus, this study addresses various issues children and teenagers with ASD face daily.

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