

Social Skill Interventions on Children with Attention-Deficit Hyperactivity Disorder (ADHD): Parents and Peers Involvement

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Abstract: *This article aims to review a number of studies on interventions towards children involving parents and/or peers to improve social skills among children with Attention-Deficit Hyperactivity Disorder, including reviews of the type of interventions, participants, materials, and setting of interventions applied in the research. The review was conducted in several research results published in some international journals. Articles that examined interventions to improve the social skills of children with ADHD apart from international journals such as articles from newspapers/magazines and book reviews were not included in the analysis. The results of the review showed that the types of interventions applied comprising play-based therapy, social skills training, parents training, cognitive-behavioral therapy, peer-age training, emotional management training, and self-control training. Intervention settings used including at homes, classes, or playrooms involving therapists, parents, teachers, and other children who had or had no disabilities. Social skills training and play-based therapy that involved peers and parents were used more often compared to other types of interventions and proven to be effective in improving the ADHD children's social skills.*

Keywords: *literature review, social skills intervention, children with attention-deficit hyperactivity disorder, parent involvement, peer involvement*

Introduction

Attention-deficit / hyperactivity disorder (ADHD) is a neurological disorder in which people have a pattern of persistent lack of attention, hyperactivity-impulsivity, or a combination of lack of attention and hyperactivity-impulsivity that interfere their functions or developments. Some symptoms usually appear before the age of 12 years and must be present in more than one setting, for instance, home, school, and work (American Psychiatric Association, 2013). ADHD children experience disturbed social development associated with a lack of tolerance for frustration, changing moods, and delay in motivation and some problems in their executive functions namely difficulty in solving problems, lack of flexibility, difficulty in planning, and hampered in responding, maintaining attention, and working memory (Storebø et al., 2011).

Children with ADHD often experience problems related to the lack of social skills so it needs to be improved because it can cause other problems in the future. These problems include high peer rejection or social isolation and a lack of dyadic friendship experiences. It predicts some negative things related to emotions and behaviors that occur later in life such as more serious delinquency, smoking more heavily, and experiencing more anxiety and other common disorders (Mrug, Molina, Hoza, Hechtman, & Arnold, 2012; Ros, Graziano, Ros, & Graziano, 2017). Therefore, interventions need to be carried out to improve the social skills of ADHD children so that children can develop themselves and not cause other problems in the future (Bagwell, Molina, Pelham, & Hoza, 2001).

Several interventions to improve the social skills of children with ADHD have been reviewed extensively by several studies, but the involvement of parents

and/or peers in these interventions are still rarely reviewed for ADHD children. Interventions involving parents and / peers are often combined or separated using the home or school settings. This article aims to conduct a review of several types of interventions used to improve the social skills of children with ADHD. Besides, the intervention was also reviewed based on the involvement of parents and/or peers. The articles included are empirical research articles published in an international journal and in English. Articles that examine interventions to improve the social skills of ADHD children apart from international journals, for example, articles from newspapers/magazines and book reviews are not included in the analysis. The articles are then sorted by title and abstract.

Social Skills Problems in ADHD Children

Social skills are the ability or capacity of a person to do what is desired or needed at least one part of his welfare and social development where these abilities can be learned or developed (Goodman, Joshi, Nasim, & Tyler, 2015; Ikesako & Miyamoto, 2015). Gresham, Elliott, Vance, & Cook (2011) then put forward four aspects of social skills, including 1) cooperation, 2) assertiveness, 3) responsibility, and 4) self-control. ADHD children tend to have lower social skills than other children. It is also likely to cause children to become depressed, and that social skills are an important part of the relationship between ADHD and depression, especially in women (Simoni, 2016).

Problems with social skills in ADHD children include not listening to others, starting conversations at inappropriate times, and not being able to read social cues. They tend not to understand or be unaware of the social situation and the reactions they make to others (Boo & Prins, 2007; Marton, Wiener, Rogers, Moore,

& Tannock, 2009). In addition, ADHD children display behaviors such as noisy and breaking rules, which put them at risk of social rejection, so they feel unaccepted, isolated, different, disliked, and feel alone (Mrug et al., 2012).

Research conducted by Normand et al. (2018) revealed that ADHD children and their friends felt significantly less satisfied with the quality of their friendship. Hyperactivity in ADHD children, by making more movements both legal and illegal, makes ADHD children tend to break the rules in competitive games, which can be a factor of rejection by their peers.

Some children with ADHD are more likely to have social goals, such as having fun compared to obeying rules and equality. ADHD children may not have good prosocial behavior models to emulate because they tend to be disliked by their peers. Parents of other peers also often prevent their children from playing with children who display disruptive behavior (Hoza et al., 2005; Normand et al., 2011).

Social Skills Intervention

Based on the results of a review of several articles, they found several types of interventions that are grouped into seven types of interventions that have been used to improve social skills in children with ADHD. These types of interventions include play-based therapy, cognitive-behavioral therapy, social skills training, parent training, cross-age peer training, emotional management training, and self-control training.

Play-based therapy was varied, including parents' involvement at home in which children were shown self-modeling videos; they were playing in the previous session, and games played with peers and parents' involvement at home. Broadly speaking, the results of both studies indicate that there is an increase in social skills in ADHD children. However, the play-based therapy that involves self-modeling video, in fact, also shows a decrease in some children. Therefore, further research is needed regarding the media use in this therapy (Wilkes-gillan, Bundy, Cordier, Lincoln, & Chen, 2016; Wilkes-gillan et al., 2017)

Cognitive-behavioral therapy used in the research of Coelho et al. (2017) compared the results of therapies using only drugs and combining drugs with treatments. There are six areas as therapeutic goals, namely (1) psychoeducation: sessions with parents and sessions with children, (2) parent training, (3) planning and organizing for parents, (4) problem-solving, (5) emotional regulation, and (6) social skills. The results of this study indicate that with cognitive-behavioral therapy, the children's social skills have increased in the frequency of empathy, assertiveness, and self-control subscales and reduced perception of difficulties in assertiveness and difficulties in the self-control subscale. The findings have no evidence (no statistical significance) for the group treatment effects when

using cognitive (working memory and attention) and behavioral measurement.

In addition, in social skills training combined with parent training, it was found that social skills training was more effectively used to improve the social skills of ADHD children (Huang, Chung, Ou, & Tzang, 2015; Jijina, Sinha, Disorder, & Disabilities, 2016). However, research by Storebø, Gluud, Winkel, & Simonsen (2012) also shows that social skills training combined with parental training does not show significant benefits for ADHD children when compared to standard treatment. On the other hand, the pilot therapy delivered by parents to children in the Wilkes-gillan, Bundy, Cordier, & Lincoln (2014) shows that the intervention succeeded in increasing the social play skills of ADHD children and their playmates.

Next, cross-age peer training is a training that involves the role of cross-age peers as social skills training for ADHD children. The results of this study indicate that cross-age training programs cause social decline and are very acceptable to participants (Vilardo, Dupaul, Kern, & Hojnoski, 2013). Besides, emotion management training (Choi & Lee, 2015) and self-control training (Beh-pajooh, Fatemi, Bonab, Alizadeh, & Hemmati, 2012) are also effective in improving the social skills of ADHD children.

After reviewing several research articles, it can be concluded that the most widely used and effective interventions for improving social skills in ADHD are social skills training and play-based therapy. Some studies for these two types of therapy also suggest differences or disapproval in some children. Therefore, further research is needed related to the two therapy types.

In social skills training and game-based therapy, children are facilitated with the social skills needed for future interaction. Children can read social cues as desired (Choi & Lee, 2015; Huang et al., 2015; Jijina et al., 2016; Storebø et al., 2012). Especially when playing, children can practice their social skills with a pleasant future and can transfer the skills they have learned into their interactions when playing with their playmates (Wilkes-gillan et al., 2016; Wilkes-gillan et al., 2017).

Parent Involvement

The first developmental period of children occurs under the control and supervision of parents, which causes children to socialize by observing behavior and roles in the family (Kol, 2016). Therefore, it is necessary to involve parents in interventions to improve the social skills of ADHD children.

Parents' involvement in conducting interventions includes registration, filling out questionnaires, and interviews related to children who will intervene are necessary because parents generally are most aware of their children's condition (Jijina et al., 2016; Rahmani & Majidi, 2016). In addition, parents are also given psychoeducation about the importance of social skills,

the importance of parents' involvement in improving children's social skills, and parents are also taught the principles of generalization using behavioral methods to be applied to their children after the intervention ends (Jijina et al., 2016).

The involvement of parents in interventions helps their children generalize the skills they have learned to apply outside the home environment (for instance, at birthday parties, on holidays, and schools). However, parents' perceptions of the implementation of interventions still require formal inquiry. It is necessary because children with ADHD have difficulty with generalizing skills and experiencing social difficulties in various social contexts (Storebø et al., 2012; Wilkes-gillan et al., 2014; Wilkes-gillan et al., 2017).

Peer Involvement

Peer involvement in interventions is usually marked by participants who teach or model other participants. Children will usually be taught social interaction strategies such as sharing, helping, encouraging, teaching, or praising. Interventions are usually led by the facilitator and the children as participants will play role plays or teach other friends. That way, the results of interventions can gradually improve (Vilardo et al., 2013). Criteria that are usually involved in the intervention process to improve the social skills of ADHD children usually do not have behavioral difficulties, yet they have an interest in interacting with ADHD children as the subject of the research, and do not have problems related to social and language development (Wilkes, Cordier, Bundy, Docking, & Munro, 2011).

Peer involvement in the intervention process can motivate ADHD children to perform good interactions and can model desired social skills that can be emulated by ADHD children and facilitate cooperative play. Peers in play also function as important agents of change because they become adept at handling challenging social behavior. Peers can also act as reminders and help therapists to condition ADHD children (Vilardo et al., 2013; Wilkes-gillan et al., 2016). Based on the perspective of social learning theory, children will get a great opportunity to learn to understand how to behave and the consequences of such behavior so that their social skills increase due to modeling done by peers during group interactions (Fabiano, Schatz, & Pelham, 2014).

Interventions to improve social skills involving peers have been empirically researched for children with Autism Spectrum Disorders (ASD) (Wang, Cui, & Parrila, 2011). Therefore, further research needs to be done on social skills interventions among ADHD children.

Conclusion

Based on the review's results of several articles that examined several interventions to improve social skills of ADHD children with the involvement of parents and/or peers, it can be concluded that all interventions

applied can improve the social skills of ADHD children. However, some other studies showed insignificant results. Therefore, further research needs to be done on these interventions to test their effectiveness. As can be seen from some research, social skills training and play-based therapy that involves peers and parents are considered as the most often used and are effective in improving the social skills of children with ADHD. Parents' involvement includes registration, interviewing, filling out questionnaires, and helping to transfer skills that have been taught to children to other settings, while peer involvement includes teaching or modeling social skills to other participants.

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