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Review

Group-based social skills treatment: A methodological review

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ABSTRACT

Group-based social skills training (SST) is a common treatment for children with autism spectrum disorders (ASD). There has been exponential growth in group-based SST in recent years. This review evaluated the SST literature published between 2000 and 2012 on a number of methodological variables. Key quality indicators included conducting a randomized controlled trial (RCT), having a well-characterized sample, using a manualized intervention, and using validated outcome measures. We identified a total of 48 studies. Thirteen studies (27%) were RCTs. Twenty-two studies (46%) had well-characterized samples, but only four (8%) explicitly allowed eligibility for individuals with intellectual disability. Eighteen (38%) had 10 or fewer participants in each active treatment condition. Most studies used or adapted a manual (71%), and had validated outcome measures (92%). Several rating scales and performance measures have seen widespread use. Methodological rigor has been improving as the field grows, especially with regard to the key quality indicators. We provide additional recommendations for future trials regarding study design, expanding participant characterization, statistical methods and analyses, and outcome measures.

Contents

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1. Introduction

Socio-communicative impairments are core deficits in individuals with an autism spectrum disorder (ASD). Currently most treatments target comorbid rather than core symptoms of ASD. Social skills training (SST), however, is frequently used among those with ASD to address core social deficits. According to preliminary analysis from the Interactive Autism Network (IAN), social skills groups are the fourth most common treatment for ASD (IAN Research Findings, 2011). Relatively few studies in ASD were published prior to 1990 on either individual or group social skills interventions, but starting in the 1990s, individual SST rapidly expanded (Matson, Matson, & Rivet, 2007). Group-based SST followed thereafter, but individual therapy dominated the research literature well into the mid-2000s (Reichow & Volkmar, 2010). Research on both individual and group SST has grown exponentially in recent years.

1.1. Social competence, social skills, and social deficits

SST attempts to improve social competence. Social competence is a multidimensional construct without a widely agreed-upon definition. One definition is a subjective judgment on how one manages social interactions with others. By necessity, managing social interactions requires multiple skills, such as recognizing and using culturally valued skills and having the fluidity to adapt one's skills to be accepted by peers and attain one's goals; thus the skills to effectively compete in the presence of peers (Stump, Ratliff, Wu, & Hawley, 2009). Increased social competence may be evident in positive ratings from peers (e.g. Blandon, Calkins, Grimm, Keane, & O'Brien, 2010). Improved peer ratings aligns with defining social competence as a set of social skills that maximize the possibility for naturally occurring reinforcers and minimize the possibility of social punishment (Gresham & Reschly, 1987), but it also recognizes that effective social competence requires engaging in prosocial behaviors directed toward others in order to improve one's own position (Stump et al., 2009).

There are multiple types of social skills involved in social competence. With regard to treatment studies, a basic distinction can be made between skills taught in-session and more general social skills, both of which should be considered important treatment outcomes (Lord et al., 2005). For this review, we expand on this distinction and add a third type of skills measure. First, there are proximal skills, or skills which are specifically taught in-session. An example of this could be if an intervention teaches how to introduce oneself to others. Behavioral observations of introductions during a community outing could then be observed directly. This second type of measure consists of distal social skills, which are important social skills that were not specifically targeted by the intervention. An example of this would be rating scales broadly assessing multiple types of social skills, such as staying calm when teased (if not specifically taught in treatment). Finally, there are global measures of social competence. A prime example of these global measures would be the social domain of adaptive behavior assessments.

1.2. Types of social skills training

Multiple SST modalities exist, including individualized instruction by a clinician, peer training, parent-implemented programs, and group SST. Individualized instruction by clinicians have been criticized due to a lack of ecologically valid social interactions, whereas peer implemented interventions, individually or in SST groups, have a higher degree of ecological validity (DiSalvo & Oswald, 2002). Several parent programs have been developed (e.g. Aldred, Green, & Adams, 2004; Carter et al., 2011; Drew et al., 2002; Green et al., 2010), though these primarily target precursors to social skills such as joint attention.

This review focuses exclusively on SST taught in a group setting directly targeting the child with ASD. These interventions can be broadly separated into didactic interventions, which attempt to impart social knowledge, and performance interventions, which attempt to elicit social behavior. Rarely does a training program involve only didactic or only performance techniques (e.g. modeling and rehearsal often occur in both settings). However, interventions often more closely align with one than the other. Group-based SST may also include peer training and/or a parent component. Programs also vary in what social skills were targeted. For example, some target specific discrete skills like Theory of Mind (ToM), more "generic" skills such as friendship and conversation skills, or more complex skills such as social cognition and problem-solving.

1.3. Previous reviews of group SST and the current review

There have been several reviews of SST programs specifically for ASD (Cappadocia & Weiss, 2011; Ferraioli & Harris, 2011; Rao, Beidel, & Murray, 2008; Reichow & Volkmar, 2010; White, Keonig, & Scahill, 2007). However, not all have focused on group-based interventions (e.g. Ferraioli & Harris, 2011; Reichow & Volkmar, 2010). In addition, there have been numerous published studies in recent years (14 studies in 2011 and 2012 alone, many of which have not been included in previous reviews), and several of these new studies evaluated the same SST program. Multiple evaluations of a program are important since some of the best evidence for efficacy comes from replicability across studies (c.f. Chambless & Ollendick, 2001).

Importantly, previous reviews have focused on SST efficacy rather than on methodology. Efficacy reviews make assumptions regarding SST, such as that all programs are comparable and that pooled effect size would capture the efficacy of SST in general, which may not be warranted. SST has varied widely with regards to study design (e.g. type or use of a control group) and outcome measures, but more fundamental differences also exist, such as primary treatment format