PEERS for Treatment of Individuals with High-functioning Autism

Ashley Deible

Introduction

- Autism Spectrum Disorder (ASD) refers to a broad range of conditions characterized by challenges with social skills, repetitive behaviors, speech and nonverbal communication (Autism Speaks).

- Anxiety disorders affect an estimated 11 to 40 percent of children and teens on the autism spectrum (Autism Speaks).

- Typical social skills deficits occur in: reciprocity, initiation of interaction, maintenance of eye contact, ability to share enjoyment, empathy, and ability to infer the interests of others. (Bellini, 2004)

Autism affects an estimated **1 in 59** children in the United States.

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Research Question

What is the most effective intervention to decrease social anxiety and increase social skills in children who have Autism?

Methods

Database
- PsycINFO

Search Terms
- Cognitive Behavioral Therapy AND high functioning Autism Spectrum Disorder AND anxiety (14)
- Cognitive Behavioral Therapy AND autism spectrum disorder AND anxiety (96)
- Children or youth or adolescen* AND autism or ASD or Asperger's AND Anxiety AND intervention or treatment or therapy or program or strategy or RCT or controlled trail (1066)
- Program for the Education and Enrichment of Relational Skills AND children or youth or adolescents AND Autism AND Anxiety AND Social Skills (4)

Inclusion Criteria
- Peer-reviewed
- Articles from 2004 - 2018
- Intervention Studies (n = 1,180)

Recommended Intervention
Program for the Education and Enrichment of Relational Skills (PEERS)

PEERS is a social skills training program for high-functioning adolescents with ASD (Yoo et al., 2014).

- PEERS was originally developed by the University of California Los Angeles to be parent-assisted
- but one study tested it as teacher-facilitated (Yoo et al., 2014).
- PEERS helps to improve social problems associated with ASD, such as social anxiety and behavioral problems
- PEERS intervention is made up of 14 weekly 90 minute sessions.
- Teacher-facilitated programs consist of daily 30 minute lessons over 14 week period (Laugeson, Ellingsen, Sanderson, Tucci & Bates, 2014).

## Rationale for Recommended Intervention

- **Teacher-facilitated PEERS Intervention:** A quantitative, quasi-experimental study with 73 participants between ages 12 and 14, along with their parents and eight teachers between ages 29-59 with 4 to 11 years of experience. Measured outcomes via data collection through parent, teacher, and adolescents self-reports of social functioning in a pre-and-post test. (Laugeson, Ellingsen, Sanderson, Tucci & Bates, 2014).

- Difference scores showed that in the TG there was a greater improvements in knowledge of social skills (DS = 6.52) than the CG. This study showed a long-term maintenance of the treatment after 1-5 years of the intervention (Laugeson, Ellingsen, Sanderson, Tucci & Bates 2014).

- The Social Anxiety Scale (SAS) was completed by the parent of the child with Autism. The results showed a decrease in social anxiety, in the TG (mean DS = 3.17) compared to the Active CG (mean DS = -8.60) (Laugeson, Ellingsen, Sanderson, Tucci & Bates 2014).

- **Korean PEERS Intervention:** A quantitative study with 47 participants between ages 12 and 18 and their parents. Twenty-eight were randomly assigned to the Treatment Group and twenty-seven randomly assigned to the control group. This study was a randomized controlled trail with pre-and-post test. (Yoo et al., 2014).

- On the TG outcome, The Autism Diagnostic Observation Schedule (ABOS) showed a 13.05% (t = 6.75) improvement in language and communication skills and a 13.45% (t = 7.16) improvement in reciprocating social interactions from the pre-and-post test.

- The State and Trait Anxiety Inventory for Children (STAIC-T and STAIC-S) showed a 4.0% (t =1.23) decrease in social anxiety and the Korean Child Behavior Checklist (K-CBCL) showed a 5.5% (t = 3.32) decrease in social anxiety from before to after treatment.

- A variety of other test over behavioral, social skills and anxiety showed a modest to significant improvements. (Yoo et al., 2014).

Others intervention considered
Cognitive Behavioral Therapy

Intervention
- Modalities of CBT interventions studied: 3 Family-based (Murphy et al 2017, Jeffrey J. Wood et al. 2008, Chalfant, Rapee & Carroll 2006), 1 Individualized (Storch et al 2013), 1 Group (Reaven et al. 2012) and 1 Internet based (R.J. Conaughton et al 2016).
- Four of the studies are randomized controlled trails.
- Four out of the six studies reviewed showed a significant decrease in social anxiety in children with Autism.

Limitations
- Small sample sizes (ranging from n = 36-50)
- Non-diverse population (Caucasian n = 42 vs. non-Caucasian n = 8) (Reaven et al 2012).
- Child-reports did not show a significant change in anxiety levels from pre-to-post test between the TG and the WL group. (Wood, Drahota, Sze, Chiu, & Langer 2009).
- Developers of the intervention conducted the studies (Wood, Drahota, Sze, Chiu, & Langer 2009)
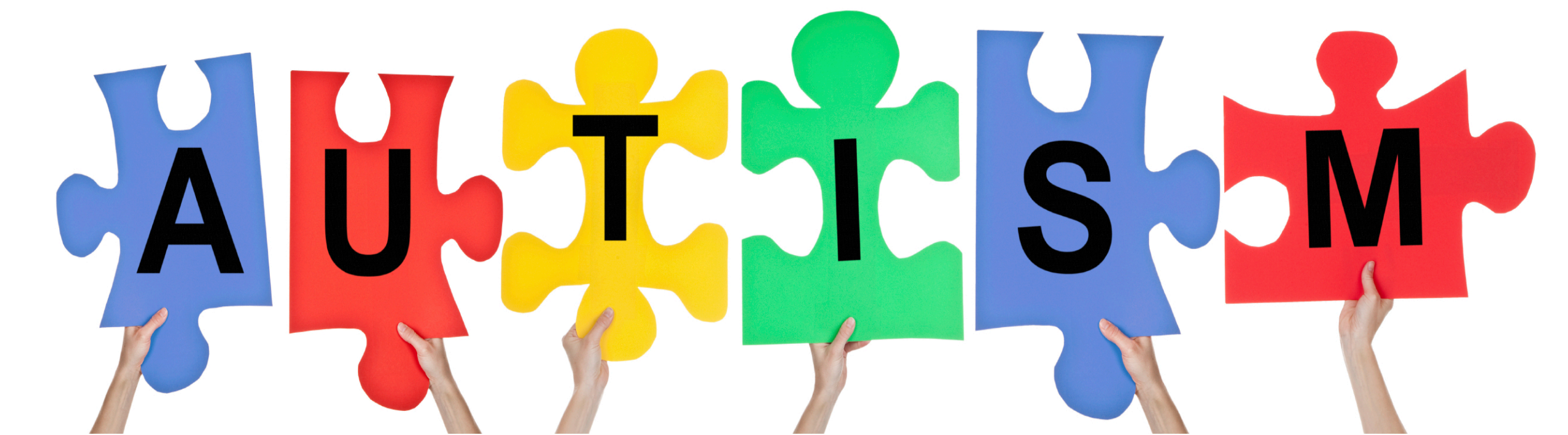
Conclusion & Recommendations for practice and research

- PEERS is an effective intervention for decreasing social anxiety and increasing social skills.
- PEERS continues to be effective years after intervention is held.
- PEERS requires more research with larger and more diverse treatment groups.