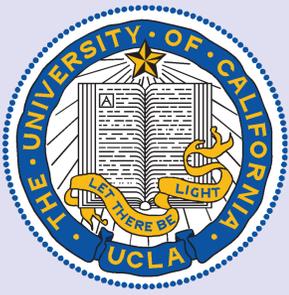


Anxiety, Depression, and ADHD as Predictors of Social Skills Treatment Outcome among Adults with ASD: UCLA PEERS® Intervention



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BACKGROUND

- Adults with autism spectrum disorder (ASD) have higher levels of psychiatric comorbidities than clinical populations of adults without ASD (Joshi et. al., 2013).
- Comorbid psychopathology has been found to have a negative effect on social skills for youth with ASD (Waters & Healy, 2012).
- Previous research suggests that psychiatric comorbidities may affect social skills treatment gains in children with ASD (Antshel et al., 2011).
- While studies have shown comorbid psychopathology has negative impacts on social skills, few studies have examined the effects of comorbid psychopathology on treatment outcomes for young adults with ASD following social skills treatment.

OBJECTIVE

- The present study aims to evaluate symptoms of social anxiety, depression, and ADHD as predictors of social skills outcomes and problem behaviors among young adults with ASD following the UCLA Program for the Education and Enrichment of Relational Skills intervention (PEERS®; Laugeson, 2017).
- The researchers hypothesized that baseline social anxiety, depression, and ADHD would not be predictors of treatment outcome for young adults with ASD following the UCLA PEERS® intervention.

PARTICIPANTS

- $N = 92$ young adults presenting for social skills treatment through the UCLA PEERS® Clinic, an evidence-based social skills intervention.
- All participants had clinically elevated ASD symptoms at baseline as determined by a total score ≥ 60 on the Social Responsiveness Scale-Second Edition (SRS-2; Constantino & Gruber 2012).

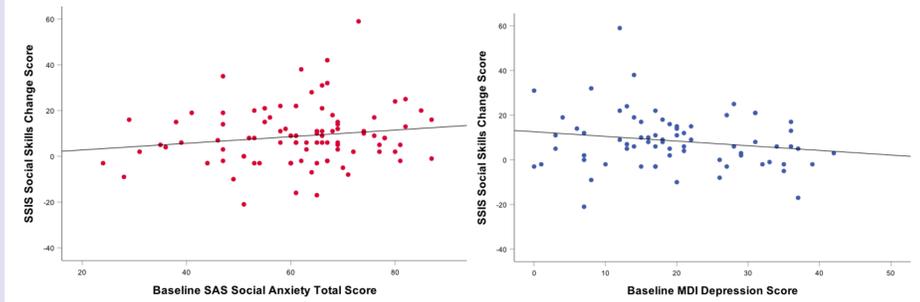
Gender	Male	76.1% ($n=70$)
	Female	23.9% ($n=22$)
Age	<i>M</i>	22.76
	<i>SD</i>	3.645
	Range	17-35 years
Ethnicity	Caucasian	66.3% ($n=61$)
	Latino/Hispanic	8.7% ($n=8$)
	African-American	2.2% ($n=2$)
	Asian	6.5% ($n=6$)
	Native American	1.1% ($n=1$)
	Middle-Eastern	1.1% ($n=1$)
	Multi-Racial	12% ($n=11$)
	Other	2.2% ($n=2$)

PROCEDURES

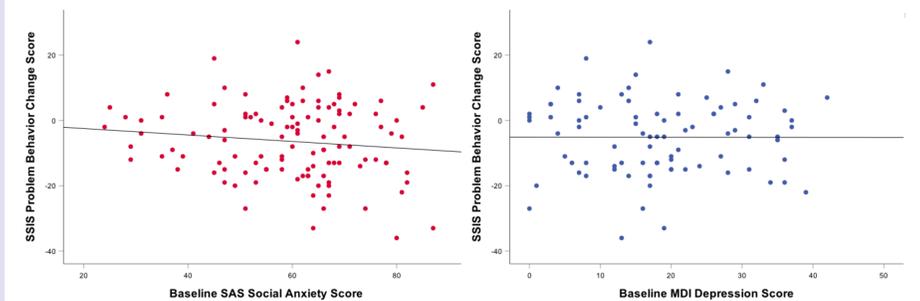
- Participants attended PEERS® for Young Adults (Laugeson, 2017), a 16-week caregiver-assisted social skills intervention to learn strategies related to the development and maintenance of social relationships.
- To assess young adults' baseline social anxiety and ADHD symptoms, caregivers completed the Social Anxiety Scale (SAS; La Greca, 1999) and the Swanson, Nolan, and Pelham Questionnaire-4th edition (SNAP-IV; Bussing et. al., 2008), respectively.
- Depression was assessed using young adult self-reported depression on the Major Depression Inventory (MDI; Olsen et. al., 2003).
- Improvement of social skills was assessed by examining caregiver-reported change in social skills and problem behaviors on the Social Skills Improvement System (SSIS; Gresham & Elliot, 2008).
- Separate linear regressions were used to assess baseline social anxiety, depression, and ADHD symptoms as potential predictors of treatment outcome (i.e., change scores for SSIS social skills and problem behaviors).

RESULTS

- Paired samples t-tests revealed significant improvement in caregiver-reported social skills ($t(91)=-6.47, p<.001$) and problem behaviors on the SSIS ($t(91)=5.845, p<.01$) among young adults following treatment.
- A Bonferroni correction was applied to account for multiple tests ($\alpha=0.008$).
- Results revealed changes in standard scores on the SSIS social skills subscale was not predicted by baseline social anxiety ($F(1, 88)=2.220, p>.10, R^2=.025$), depression ($F(1,69)=2.236, p>.10, R^2=.031$), or ADHD ($F(2,49)=1.441, p>.10, R^2=.056$).



- Change in standard scores on the SSIS problem behaviors subscale was not predicted by baseline social anxiety ($F(1,88)=1.75, p>.10, R^2=.03$), depression ($F(1,69)=.27, p>.10, R^2=.00$), or ADHD ($F(2,49)=1.06, p>.10, R^2=.04$).



DISCUSSION

- Findings reveal that baseline social anxiety, depression, and ADHD are not predictive of improvement in social skills or problem behaviors for young adults with ASD following the UCLA PEERS® intervention.
- Results suggest the UCLA PEERS® for Young Adults Program provides those with ASD and comorbid psychopathology equivalent opportunities to improve social skills as those with ASD alone.
- Since many individuals with ASD have comorbid psychiatric disorders, it is critical that young adults with ASD and mental health comorbidities are able to benefit from social skills interventions.
- One limitation of the current study is that psychiatric comorbidities were limited to anxiety, depression, and ADHD.
- Future studies might investigate the impact of other psychiatric comorbidities as well as non-psychiatric comorbidities such as intellectual and learning disabilities on treatment outcome for young adults with ASD following the UCLA PEERS® program.

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