


Anxiety and Peer/Social Challenges in High-Functioning Adolescents with Autism

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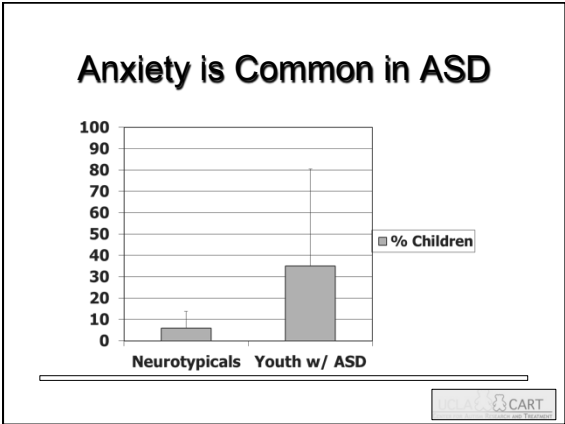




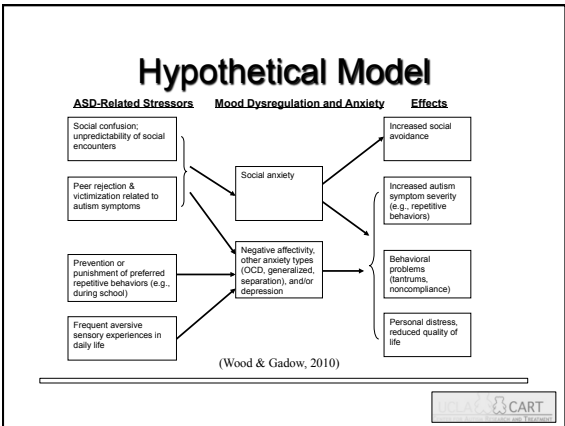
Social Anxiety

- Social anxiety is based on the fear of humiliation and rejection, and likely develops, in part, from challenges in fitting in with the conventional norms of many peer groups in late childhood and adolescence
- Once social anxiety develops traitlike properties, it promotes avoidance through negative reinforcement, further inhibiting social engagement





- ### Understanding the Linkage
- Genetic markers of anxiety in typical youth are also present for some with ASD and anxiety (Gadow et al., 2008, 2009, 2010)
 - Do susceptibility genes for autism and ASD travel together to some extent?
 - Susceptibility to repetitive/"sticky" thoughts (e.g., Segerstrom, Tsao, Alden, & Craske, 2000)
 - Elevated (ASD-related) stress (Gillott & Standen, 2007)
- CART logo



Pathway Linking Anxiety and ASD Symptoms

- Due to frequently experiencing negative emotion, attention is divided and feared stimuli (e.g., peers) are avoided.
- Mental effort needed to maintain “new” concepts in memory is overwhelmed by loss of attention, leading to reemergence of *suppressed* behavior patterns (cf. Brewin, 2007; Wenzlaff & Bates, 1998)
 - Special interests → focus of thought and conversation
 - Fairness/justice > social connectedness
 - Taking jokes personally > keeping composure
- Academic, other focused tasks adversely affected



Neurotypical Findings on Social Anxiety → Social Functioning

- Social anxiety linked with:
 - Reduced social networks and poorer self-esteem (e.g., Neal & Edelmann, 2003).
 - Poor social skills: parent-reported low assertion and responsibility; observed infrequent initiations and social interactions (Spence, Donovan, and Brechman-Toussaint, 1999)
 - Social withdrawal reported by teachers (Erath, Flanagan, & Bierman, 2007)
 - Difficulty in generating conversation topics during role plays (Alfano, Beidel, & Turner, 2006).



Study Sample

- 99 youth and their parents interested in clinical trials for treatment of ASD and comorbid anxiety
- Ages range from 7 to 14 years
- Recruited through multiple community sources in Los Angeles area.
- Youth were grouped into age groups 7-10 and 11-14 for analyses.
- All youth had WISC full scale, perceptual, and verbal scores ≥ 70.
- Met criteria for at least PDD on ADI-R and ADOS



Measures

- Anxiety Disorders Interview Schedule—Child and Parent Versions (ADIS-C/P)
- Pediatric Anxiety Rating Scale
- Revised Child Anxiety and Depression Scale
- Social Skills Rating Scale
- Asher Loneliness Scale
- Social Responsiveness Scale (SRS)



Multiple Linear Regression Analysis for Anxiety Predicting SSRS Scores

Variables	B	β
Social Phobia	-2.86	-.349*
Generalized Anxiety Disorder	.280	.044
Separation Anxiety Disorder	-.549	-.089
Obsessive Compulsive Disorder	-.093	-.018

* $p < .05$, ** $p < .01$

N = 44



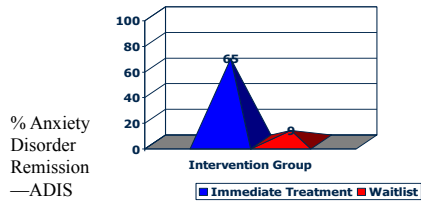
Social Anxiety and SRS Items

	Has difficulty making friends, even when trying his or her best	Would rather be alone than with others	Is awkward in turn-taking interactions with peers	Has difficulty relating to peers
PARS	.32*	.51*	.18	.33*
MASC-P	.39*	.29+	.31*	.33*

N = 55



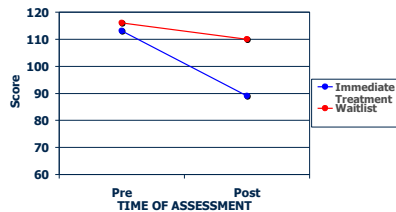
% Diagnostic Remission @ Post



$\chi^2 [1] = 12.28, p < .0001, N = 40$



Social Responsiveness Scale



$N = 19$
 $F(1,16) = 3.39, p < .05, ES = .76$



Anxiety-Social Responsiveness Linkage

- Regression models:
 - ADIS-C/P change score \rightarrow SRS post-treatment score... beta = .53, $p < .01$
 - SRS change score \rightarrow ADIS-C/P post-treatment score... beta = .63, $p < .01$
- When anxiety improved over treatment, so did social responsiveness (and vice versa).



Discussion

- Reducing anxiety while teaching social skills may be an important treatment approach