



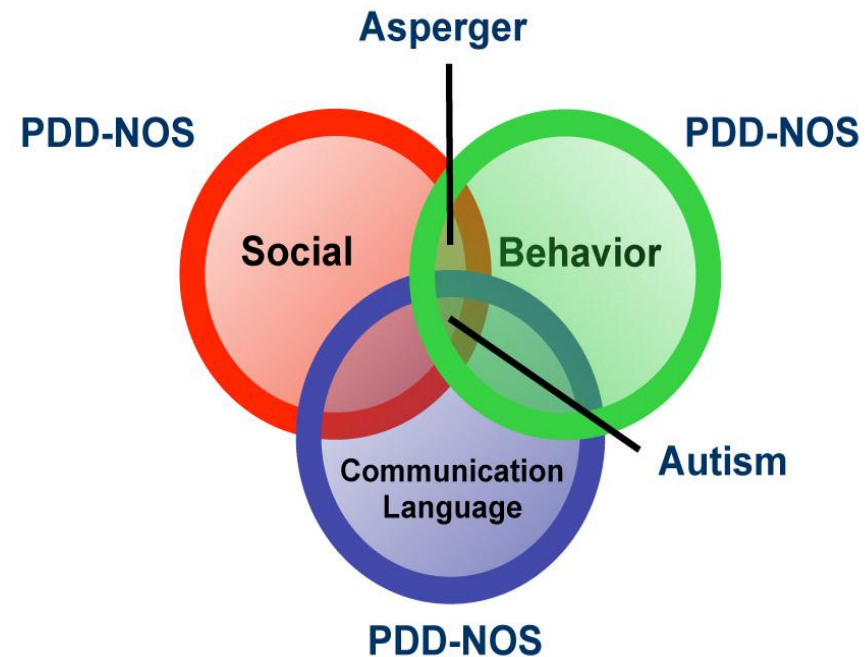
# Co-Occurring Social Anxiety and Aggression in Youth with HFASD: Evidence of Emotion Regulation Problems

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# Autism Spectrum Disorders (ASD)

- Qualitative impairments in social interaction
- Qualitative impairments in communication
- Restricted repetitive and stereotyped patterns of behavior, interests, and activities



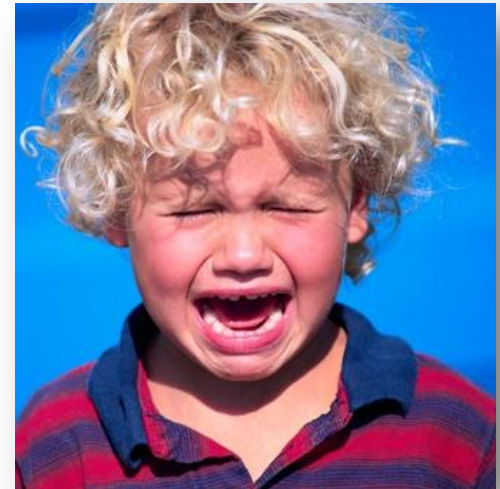
# Emotion Regulation in ASD

- Deficit in the ability to name emotions
- Difficulty labeling own emotions
- Abnormal enlargement of amygdala in youth with ASD
  - May reflect increased activity
  - Links to socioemotional deficits in ASD
- Early emotion-related temperament differences in ASD
- Behavioral and neural underpinnings of emotion regulation processes in ASD remain poorly characterized



# Emotion Regulation Development in ASD

- High levels of negative affect persist across lifespan
- Too much can hinder interpersonal relationships, attention, problem solving, and communication abilities
- An important goal is to maintain an optimal level of arousal through emotion regulation processes



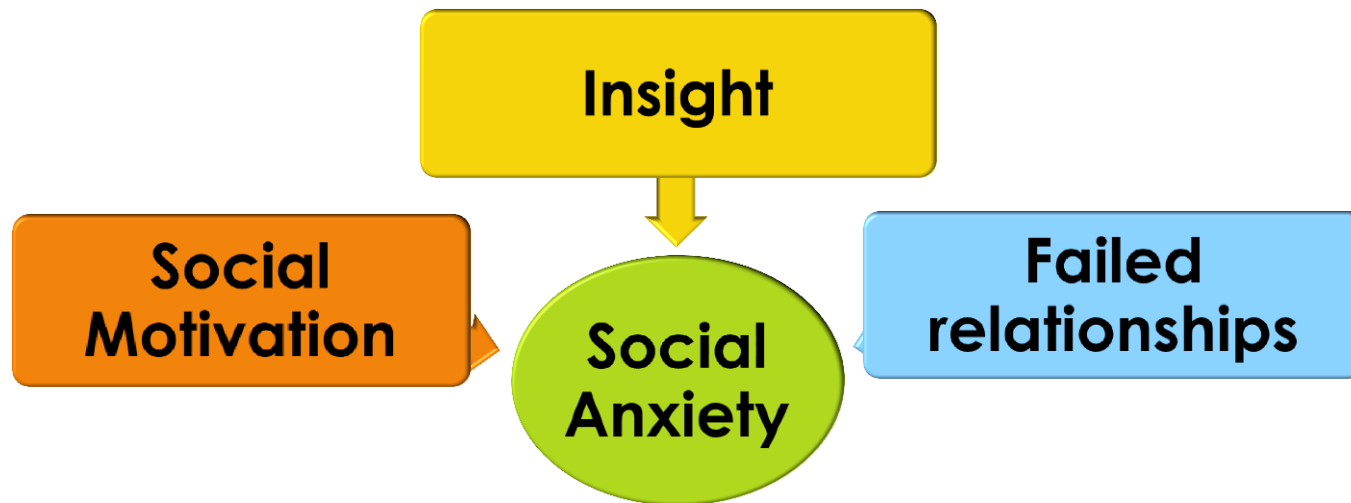
# Individual Differences in Emotion Regulation

- No single emotion regulation or reactivity profile characterizes ASD
- Emotional presentation in ASD is heterogeneous
- Emotion regulation research is important to better understand individual differences and influences on outcomes



# Co-Occurring Problems in ASD

- Anxiety problems are prevalent among children with HFASD, affecting approximately 40-45%
- Social anxiety is the most frequently reported anxiety in older children



- Problems with anger management and aggression are also common in HFASD

# Social Anxiety & Aggression in ASD

- Emotional and behavioral problems co-occur in ASD
  - Social anxiety
  - Disruptive or aggressive behavior
- Prototypical social anxiety:
  - Behavioral inhibition, over regulation, aversion to risk
  - Social withdrawal and avoidance
- Social anxiety is also associated with anger and aggression
- Extreme fears of negative evaluation, combined with self-regulation deficits, may lead to increased aggressive reactivity in children with ASD

# The Present Study

## □ Purpose:

- To examine the degree to which social anxiety predicts aggression in children with HFASD

## □ Hypotheses:

- Both excessive *and* deficient levels of social anxiety in children with HFASD place them at greater risk for aggression
- Moderately elevated social fears in children with HFASD should minimize aggression



# Procedure

- Children and their parents presented for a comprehensive psychoeducational assessment at a university based clinic
- One graduate student clinician interviewed the parent(s) and administered parent measures
- A second clinician separately administered the child measures
- Consensus diagnoses were determined in a clinical conference overseen by a licensed clinical psychologist with 40 years of experience

# Participants

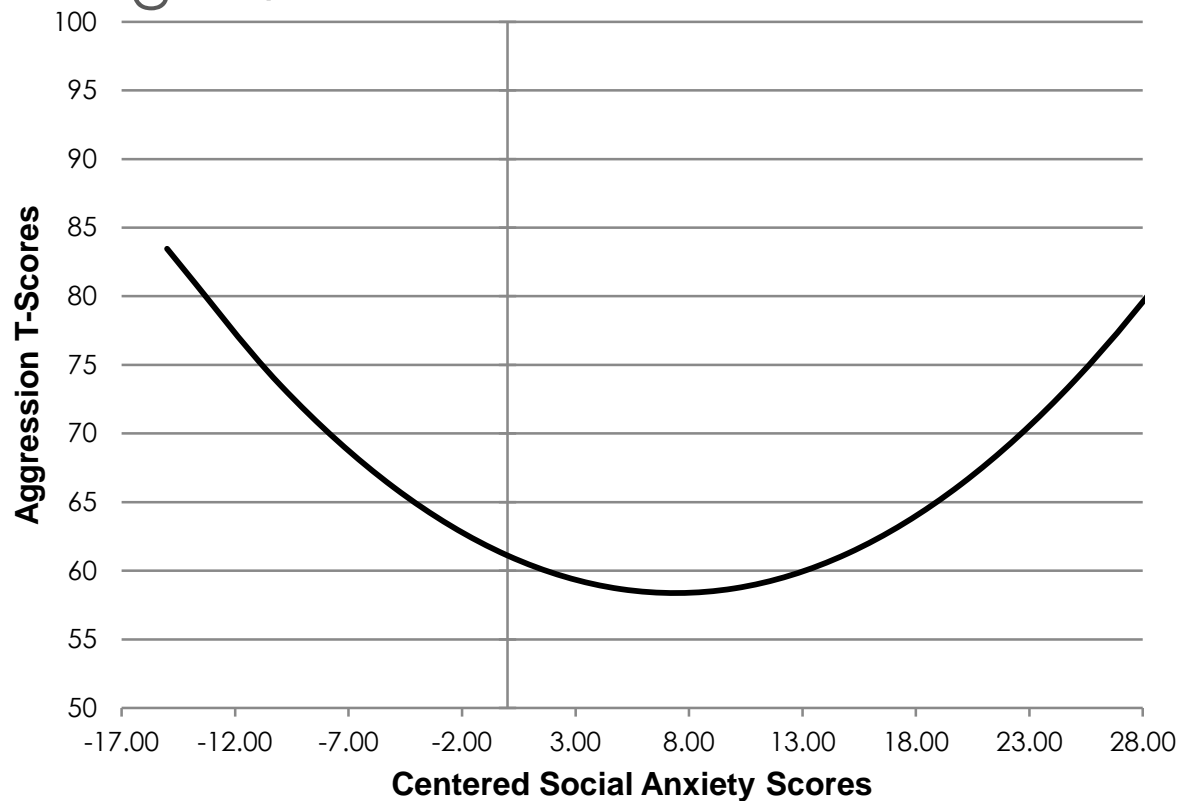
- All children screened on PDD module of the ADIS
- All diagnoses based on DSM-IV criteria during consensus meetings
- 20 children (2 females), 7-15 years old ( $M = 11.75$ ,  $SD = 2.94$ )
  - Autistic Disorder ( $n = 1$ )
  - Pervasive Developmental Disorder-Not Otherwise Specified ( $n = 9$ )
  - Asperger's Disorder ( $n = 10$ )
- All children had IQ scores above 70 ( $M = 93.75$ ,  $SD = 12.94$ )

# Measures

- The Anxiety Disorders Interview Schedule
  - Semi-structured diagnostic interview for childhood disorders
- Child Behavior Checklist, Aggression Subscale
  - Maternal report assessing noncompliance and aggression
- Child Depression Inventory
  - Self-report measure of childhood depression
- Multidimensional Anxiety Scale for Children, Humiliation and Rejection Fears Scale
  - Self-report measure of anxiety
- Wechsler Intelligence Scale for Children, 3rd & 4th ed.

# Results

- There was a significant curvilinear effect of humiliation and rejection fears on aggression explaining 47% of the variance



# Discussion

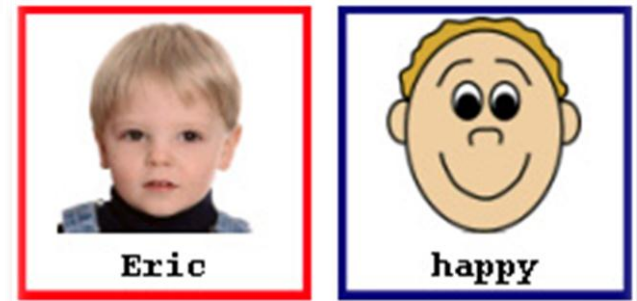
- Mild to moderate fears of humiliation and rejection may be 'optimal' in children with HFASD
- Aggression was highest in children who reported relatively low *and* relatively high levels of such fears
  - Low levels of social fears might reflect insufficient social concern or behavioral inhibition
- Socially anxious children with HFASD may have more difficulty generating and executing adaptive social problem solving strategies
  - Deficient executive functioning and emotion regulation difficulties

# Limitations & Future Directions

- Cross-sectional study, precluding direct tests of causality
- Small sample consisting primarily of Caucasian, middle class youth
- HFASD diagnoses not confirmed by gold standard tools specific to the diagnosis of an ASD
- Inclusion of two informants
- Predictions based, but not directly tested with, hypothesized mechanisms, such as self-regulation deficits

# Treatment Implications

- Treatment of problematic emotional responses in ASD is nonspecific
  - Often includes multiple psychotropic medications
- Targeting specific aspects of emotion regulation mechanisms enable better treatment match
- Packaged programs:
  - Aimed at improving description of emotions to identify and regulate their emotions
  - Face valid but not currently empirically supported or theoretically based



Thank You

*This manuscript is currently under review*



# Social Anxiety & Aggression in ASD

- Youth with HFASD have:
  - Levels of social anxiety comparable to socially anxious group
  - Levels of aggression comparable to group with ODD/CD (Pugliese et al., 2010, in preparation)

