

# Emotional and Social Functioning in ASD



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# Areas of ASD Research

- Emotional and Social Functioning
  - Social attention
  - Emotion regulation and its treatment
  - Psychophysiological and Neural regulation of emotional and social behavior
- Stress and Anger Management Program (STAMP)
  - Cognitive Behavioral Treatment (CBT)
  - Thoughts, behavior, and emotions are inter-related
  - Modified CBT approach teaches children with ASD about emotions and tools to regulate them (physical, relaxation, cognitive, social, and special interest tools)

# STAMP Findings to Date

- Randomized Controlled Trial (RCT)
  - 11 Children (5-7 years old)
  - Randomly assigned to 9-week intervention or wait-list control group
  - Wait-list group then received treatment
- Results from pre to post treatment
  - Increase in emotion regulation and decrease in negativity/lability of emotions
  - Decrease in frequency and duration of emotional outbursts
  - Increase in number of strategies children could list to reduce anxiety/anger
  - Increase in parental confidence that child could control anxiety/anger
- Recent Extension Study (6 children, 4-7 years old)
  - Decrease in anger/aggression reported by parents
  - Increase in child coping strategies observed by parents (e.g., relaxing, counting to 10, re-thinking situation)



# CAR Research Ideas

- Expand STAMP
  - Older children, adolescents, young adults
  - Younger children and less able children (nonverbal?, lower IQ?)
  - Mechanisms (e.g., social understanding, emotion understanding, anxiety reduction, knowledge)
  - Technological applications
  - Role of parents
  - Effectiveness in schools or other settings
  - Dissemination of findings
  - Addition of other treatments (e.g., music therapy; friendship training)
  - Multisite studies
- Understand basic mechanisms of emotion regulation and social behavior
  - Neural and genetic influences
  - Arousal regulation
  - Subtyping for better treatment outcome

# Current Relationships and Resources

- Dept of Psychology (psychophysiology equipment, eye-tracker, office space)
- Autism Lab – 5 graduate students, numerous undergraduate
- VT Autism Clinic
  - Research registry
  - Clients with ASD (treatment and assessment)
  - Outreach with numerous agencies (BRAAC, NRVAAG)
  - Listserv with over 160 members
- ISCE Funding (Summer Scholars in Residence)
  - Collaboration with the VTCRI (Ken Kishida)
  - Stephen Porges (Director Brain-Body Center, U of Illinois at Chicago)
- Current Collaborations
  - Carilion Clinic – Dr. Kerkering and Dr. Desai
  - Dr. Christopher Coe (U of Wisconsin)– collaboration on immune functioning
  - Dr. Dorita Berger (adjunct, Psychology) – collaboration on music based treatment of ASD
  - Dr. Elizabeth Laugeson (UCLA PEERS project)

# Collaborations and Resources Needed

- Central database for participant recruitment
- Resources for training of assistants for assessments
- Technological conceptualization and methodology
  - Use of technology to promote skills (e.g., apps, virtual reality)
  - Guidance on genetic and neurobiological influences
  - fMRI and other advanced methodologies (e.g., biomarkers)
- Experts on developmental issues, measurement, and family systems
- Schools and other settings for effectiveness studies
- Funding for pilot work in all these areas
- Ways to network and brainstorm with other scientists