



We Treat Kids Better



**USC** University of  
Southern California

***Evidence Based Practices for Children with  
ASD  
The Secret Agent Society***

Heather Hall, PhD

# Background

- Graduate of CSPP Alliant International University San Francisco
- Completed pre-doctoral internship and 2 year post-doctoral fellowship at UCEDD
- Currently working with school age children in the Child and Family Program
  - Work individually with children and their families
  - Consultant as part of the School Age Clinic a medication management clinic
  - Lead social skills groups
    - Incredible Years and Secret Agent Society
  - Involved with research through USC SADE2 Dental Study

# Autism Spectrum Disorders

- Social communication and social interaction difficulties are a defining feature of autism (APA, 2013)
- Impairments with:
  - Social-emotional reciprocity
    - Monopolize conversations
    - Difficulties sharing interests
    - Challenges with interacting appropriately in a variety social contexts (Klin, 2000)
    - Difficulty with sharing affect and making empathetic comments
  - Nonverbal communicative behaviors
    - Identification of emotions (Schultz et al., 2007)
    - Affect regulation (Konstanareas & Stewart, 2006)
    - Difficulties with sustaining appropriate eye contact

# Development of Social Reciprocity Impairments

- Difficulties with social interactions result from atypical social development, unusual interests, and information-processing impairments (Barry et al., 2003)
  - Challenges with executive functioning
  - Theory of mind weaknesses
  - Weak central coherence
  - Difficulties shifting attention
- Children with ASD fall behind at an early age and gap widens as they grow older
- Attribute social failures to lack in abilities (Barnhill, 2001)

# Consequences of Social Reciprocity Impairments

- Impact quality of life (Bauminger & Kasri, 2000)
  - Increased peer rejection and isolation
  - Lower academic achievement
  - Increased feelings of loneliness
  - Poor quality of friendships
    - 27% of children with ASD report a best friend (Sigman & Ruskin, 1999)
    - 41% of children with other Developmental Disabilities have a best friend
- Negative impact on occupational functioning as adults
  - More likely to be unemployed or underemployed

# Consequences of Social Impairments

- At-risk for developing comorbid mental health disorders
  - 70% of children with ASD meet criteria for a psychiatric disorder (Brookman-Frazee, Taylor, & Garland, 2010, Leyfer et al., 2006; Simonoff et al., 2008)
- At-risk for depression
  - 25% of children 6-12 met criteria for depression (Ghaziuddin et al., 1998)
  - 25% of 109 children aged 5-17 met lifetime criteria (Leyfer et al., 2006)
- At-risk for anxiety
  - 30% of children experience anxiety (Simonoff et al., 2008)
- Social skill interventions are a high treatment priority (Weiss & Harris, 2001)

# Social Skill Interventions & Modalities for Children with Autism

- Individual social skill intervention
  - Parent training
  - Peer training
  - Visual supports and video modeling
- Group social skill intervention
  - Increase generalization to peers (Schmidt & Stichter, 2012)
  - Maximizes efficiency of clinician

## Social Skill Group Interventions

- Treatments should address both increasing skills for routine social engagement as well as improving capacity for developing long-term quality relationships (Rogers, 2000)
- Group social skill training with peers has been established as an effective way to teach skills to children who are socially at risk (DeRosier, 2004; DeRosier & Marchs, 2005)
- Limited research focusing on SSG for high functioning school age children with ASD
  - Groups for young children and children in the lower range of functioning (Cragar & Horvath, 2003; Wolfberg & Schuler, 1993)
  - Groups for young adults and adolescents in high functioning range (e.g., Laugeson, et al 2012; Laugeson, Frankel, Mogil, & Dillon, 2009)

## Social Skill Group Interventions

- Research outcome data on social groups for children with ASD has been inconclusive (Koenig, Delos Reyes, Cicchetti, Scahill, & Klin, 2009)
- Parents are recognized as key treatment variables and have been helpful in groups with adolescents and teens (Laugeson, 2012)
- Few studies, outside of school-based SSG, have incorporated teachers into treatment to increase generalization of skills (Beaumont & Sofronoff, 2008)
- Inconsistent use of homework, community outings, and long-term treatment outcome data

# Effective Social Skill Intervention Techniques

- Effective teaching strategies
  - Cognitive behavioral approach (Cappadocia & Weiss, 2011)
  - Behavior management strategies
    - Behavioral modeling, coaching, role play, positive reinforcement and performance feedback (Laugeson et al., 2012)
  - Structured methods for teaching
  - Computers and other technology (Golan & Baron-Cohen, 2006)
  - Video modeling and visual supports (Reichow & Volkmar, 2010)
- Coordination with teachers (Beaumont & Sofronoff, 2008)
- Parent participation and education (Beaumont & Sofronoff, 2008; DeRoisier et al., 2011; Frankel et al., 2010; Laugeson et al., 2012)
  - Homework and community practice

# Autism and Pediatric Community Mental Health

- Increased number of children with ASD served in pediatric community mental health centers: 12% of clientele (Brookman-Frazee et al., 2009)
  - Reduction of resources within the DD service sector in California
  - Families are turning to CMH for resources with concerns of social difficulties, anxiety and depression
  - Increased attention to understanding psychiatric conditions in children with ASD
- CMH agencies recognize the growing need for evidence based interventions for this population to mitigate the negative outcomes
- Gap in use of evidence-based intervention procedures at CHLA for children on the autism spectrum

# Secret Agent Society Intervention

- Secret Agent Society Results
  - Children's social skills significantly improved
  - Improvements made at home and at school
  - 76% of children improved from having severe social difficulties to showing social skills within normal range
  - Program equally effective regardless of age, IQ or co-occurring disorders (e.g. ADHD)
  - Weekly home missions  Better treatment outcome

# Research Small SAS Group

- Research trials supporting SAS Small Group Program have also been conducted through:
  - Specialist ASD satellite classes across five school districts (University of Sydney and Autism Spectrum Australia)
  - University clinic delivery to children with social and emotional difficulties but without an ASD diagnosis (The University of Queensland)
  - Mainstream schools (The University of Queensland, Education Queensland and Catholic Education Queensland)
  - Skype and telephone-assisted delivery of the program to rural/remote families (The University of Queensland)
- Current randomised controlled trial of SAS Small Group Program for children with ASD, Anxiety, and ADHD (New York Presbyterian Hospital)

# Initial Objectives

- To conduct a pilot group intervention to evaluate whether the SAS program was effective in improving students' skills in the following areas at home and at school:
  - emotion recognition skills
  - emotion regulation skills
  - social interaction skills
- To better understand the potential barriers in providing the intervention within the University Center for Excellence in Developmental Disabilities (UCEDD) and address any necessary changes to facilitate implementation

# What is Secret Agent Society?

- Multi-media social skills program for 8 to 12 year-olds with High-Functioning Autism
- Espionage-themed activities to teach emotion recognition, emotion management and social skills
- Involves child group sessions, parent group sessions, teacher support, and a specialized adaptive computer game that is practiced in the home!



# Intervention

- Clients and parents participated in group sessions
- The curriculum implements many fun activities to engage children and help them learn how to:
  - recognize emotions in themselves and others.
  - express their feelings in appropriate ways.
  - talk and play with others.
  - detect and manage bullying.

# SAS Small Group Program

- 3-6 children per group (with 1-2 SAS Facilitators)
- 2 hour Parent Introduction Meeting
- 9- 18 Sessions:
  - 9-18 weekly Child Club Meetings
  - 3 x 2hr, 22 x 30min, or 11 x 45min Parent Group Meetings
  - follow-up meetings over 3 months
- Between session practice “missions”
- Weekly Teacher Tip Sheets
- Assessment, progress monitoring, and motivating rewards
- Bi-monthly contact with teachers to address generalization

# How is the Program Unique?

- Hierarchical Approach
- Evidence Based
- Ready made visual supports
- Fun and Interactive
- Individually Tailored
- Involves and supports children parents and school staff



# Elements of SAS program

- Cognitive-Behavioral Framework
- Social Learning Theory
- Behavioral Management

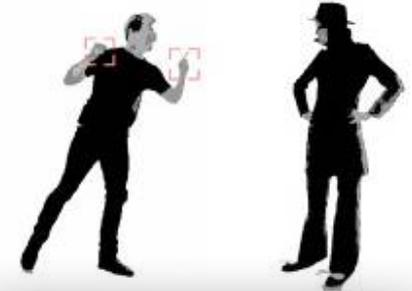
## Techniques

- Modeling
  - Role Play
  - Coaching
  - Immediate Feedback
  - Positive Reinforcement
- Board Game to reinforce skills
  - Adaptive computer game for additional practice



# Computer Game

- Four levels
- Teaches children how to
  - Recognize emotions in themselves and others
  - Express their feelings in appropriate ways
  - Cope with social challenges
- Secret Agent Journal - “Missions”
- Played at home or school with adult help

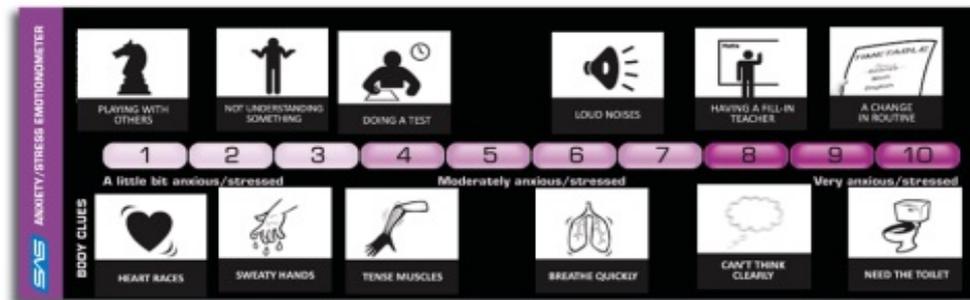


# SAS Computer Game



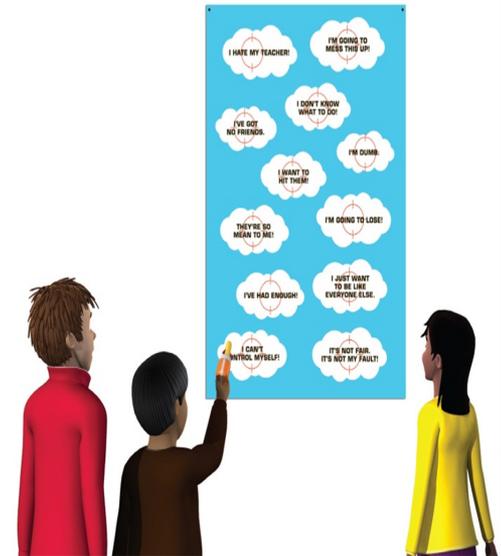
# Weekly Child Groups

- Week 1
  - Bionic Powers; detecting emotions in others from face, body and voice clues
- Week 2
  - Detecting emotions in yourself from body clues; the 'Emotionometer' (emotion thermometer); Relaxation 'gadgets': Slow breathing (the O<sub>2</sub> Regulator)



# Weekly Child Groups

- Week 3
  - Relaxation ‘gadgets’: Doing a physical activity (the Fire Engine), thinking in helpful ways (the Helpful Thought Missile), noticing and letting thoughts go (Thought Tracker)
- Week 4
  - Relaxation ‘gadgets’: focusing your senses (the Enviro-Body Scan); ‘Friendship Formula’ of good friends; understanding different social groups; ‘Friendometer’ measuring friendship



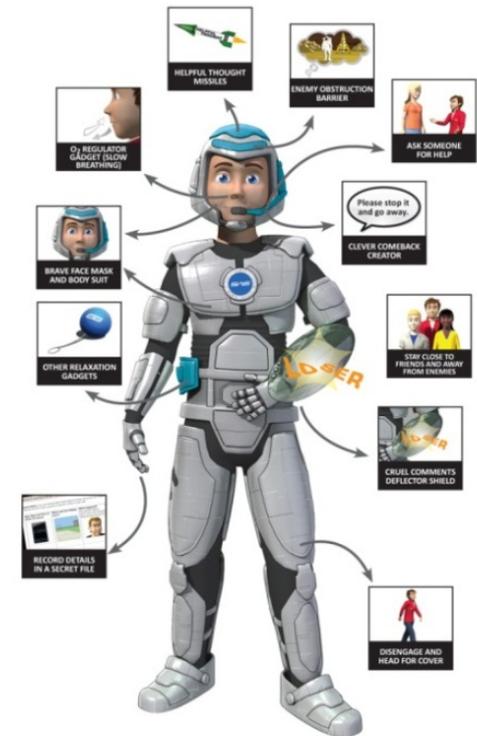
# Weekly Child Groups

- Week 5
  - D.E.C.O.D.E.R problem-solving formula;  
conversation skills
- Week 6
  - Conversation skills; playing with others
- Week 7
  - Coping with mistakes and losing; Play SAS  
Challenger Board Game to practice skills;  
detecting the difference between  
accidents, jokes and nasty deeds



# Weekly Child Groups

- Week 8
  - Understanding and managing bullying (Bully-Guard Body Armor); continue playing SAS Board Game
- Week 9
  - Coping with confusion; aim to finish SAS Board Game, review game; solving future social problems; program evaluation



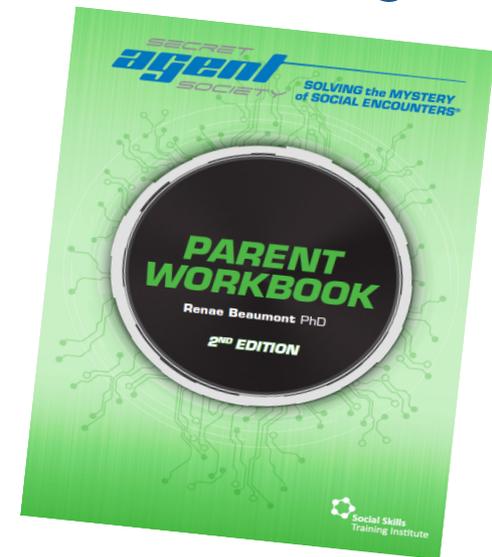
# Missions

- Missions after every group meeting
- Help children to learn and apply skills to real life
- Playing the SAS Computer Game
- Real-life practice tasks
- Answering journal questions – the Scene Generator



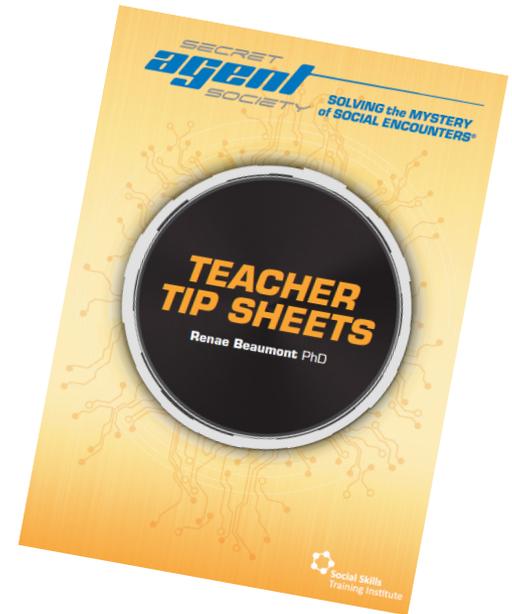
# Parent Group Meetings

- Discuss successes and challenges in supporting children to complete their home missions
- Review program content
- Discuss how parents can support their child in using their social skills
- Parent Workbook provided



# Teacher Support

- Teacher tip sheets summarize skills learned by children in the SAS Child group meetings
- Tips for how teachers can support students to use their social skills at school
- Strategies to promote better relationships among all class members
- Support for using the Skill Tracker Card



# Assessment and Monitoring

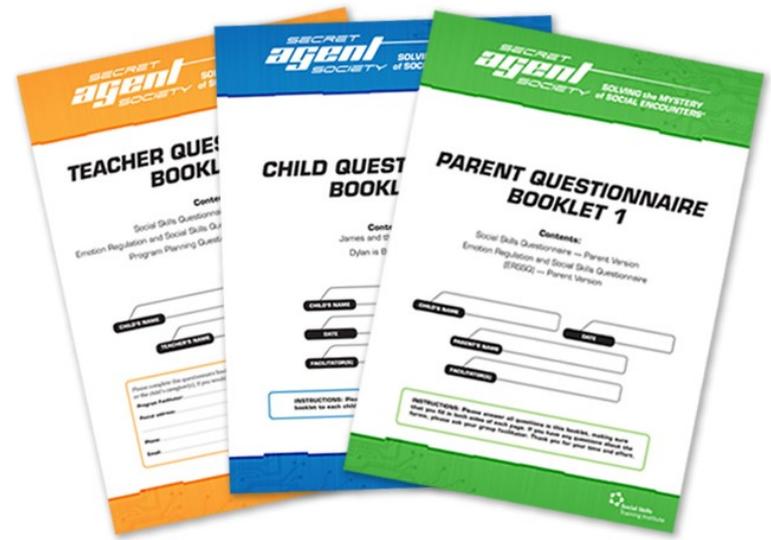
- Interviews child parent and teacher
- Questionnaires and rating scales
- Monitoring and rewarding- skill tracker card

**SKILL TRACKER CARD**

Date: 12-26 Sep Daily Tally Time: 7pm Signed off:

M	★ ★	♥ ♥ ♥	RB RB
T	★ ★	♥ ♥ ♥	RB RB
W	★ ★	♥ ♥ ♥	RB RB
Th	★ ★ ★	♥ ♥ ♥	RB RB
F	☆ ☆	♥ ♥ ♥	
S	☆ ☆	♥ ♥ ♥	
S	☆ ☆	♥ ♥ ♥	

Once you have decided on the daily symbol target for each target skill, draw in the matching number symbols. Each time a target skill is used, cross out or colour in the symbol.



## Modifications

- Bilingual clinicians to lead parent group to increase understanding for Spanish speaking parents
- Incorporation of other disciplines, Occupational Therapists, as a way to address complex needs of participants
- Serve meal to address scheduled time and length of group
  - Provides an opportunity to practice social skills
- Consistent communication with school teachers and classroom observation

# Results

- Parents, teachers and children report high levels of satisfaction with the program
- Children developed friendships within the group
- Identified challenges and barriers to leading groups
  - Necessity for translation of materials and clarification of intellectual functioning of participants
- Ongoing need to train more practitioners
- Publication
  - Sauv e, S., O’Haire, C., Hall, H., Lane, C and Hudson, B (2018) *Adapting a Social Skills Intervention for Children with Autism within an Urban Specialty Community Clinic, Evidence-Based Practice in Child and Adolescent Mental Health.*

## Future Directions

- Submitting an application for Evidenced Based and Promising Practices Registry through the Department of Mental Health
- Completion of training certification to lead SAS trainings for clinicians in the Los Angeles area
- Continue to implement groups within the UCEDD
- Collaboration with other agencies to expand utilization of the group



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# Questions?

Heather Hall - [hhall@chla.usc.edu](mailto:hhall@chla.usc.edu)