Co-occurring Psychiatric Symptoms in Children and Adolescents with Autism Spectrum Disorders: Implications for Identification and Treatment

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Co-occurring medical conditions
Shared biological etiologies with psychiatric illness
Lack of social understanding (theory of mind)
Executive functioning, organizational challenges

Conflict of Interest:
Royalties:
Facing Your Fears: Group Therapy for Managing Anxiety in Children with High-Functioning Autism Spectrum Disorders
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www.brookespublishing.com
http://facingfears.org

Defining the Problem: Mental Health Symptoms in ASD are Common
* Autism Co-Morbidity Interview – Present and Lifetime – Ages 5-17: 72% for 1, 40-50% for 2 or more (Leyfer et al. 2006; Simonoff et al. 2008)
* Most Common
  * Specific Phobia (44%)
  * Obsessive Compulsive Disorder (37%)
  * ADHD (31%)
  * Depression (24%)
Epidemiological Studies (Simonoff, 2008)
* ADHD (28%)
* Depression 1.5%
Clinical samples of Depression – 28-34% (Ghaziuddin et al.1998; Strang et al. 2012)

Why are people with ASD so vulnerable to Psychiatric illness?

Diagnostic Dilemmas for individuals with ASD

Problem Behaviors
Symptoms Present Differently in ASD/ID
Diagnostic Overlap
Disorder/Overlap
Psychosocial Masking

Problem Behaviors: non-compliance; aggression; self-injurious behavior

Negative Affect:
Anxiety, Depression, Anger, Irritability, Agitation

Emotion Regulation
The Role of Emotion Regulation

• The ability to recognize and manage emotions in reaction to the environment (Weiss, 2014)

• Deficits in emotion regulation may be a risk factor and underlie many mental health symptoms (White et al. 2014)

• Emotional reactivity – 0-100!

Impact of Anxiety on Functioning

• Anxiety interferes with functioning across home, school and community

• Under-employed, risk for substance abuse, and development of other psychiatric disorders

• Higher risk for challenging behaviors

• Higher risk for developing medical conditions such as GI and sleep disturbance

• Without intervention, symptoms may persist into adulthood

• Evidence of increased financial cost for individuals with both ASD/Anxiety

When to Consider Co-Morbidity

► Presence of non-ASD symptoms
  * Hyperactivity, sad or irritable mood, increased anxiety, affective instability
  * Severe and incapacitating problem behavior
  * Aggression, self-injury, agitation, sleep disturbance
  * Worsening of symptoms already present
  * Decreased communication, increased stereotypies, decreased self-care and adaptive behavior
  * Abrupt change in behavior from “baseline”; qualitative change in level of functioning
  * Rule out medical condition

Real World Interference

• Fear of public bathrooms (e.g., automatic toilets, hand dryers)

• Fear of being late

• Fear of dogs or other animals

• Fear of talking to new people

• Fear of separating from parents

• Fear of making mistakes

Emphasis on Anxiety Disorders

► Prevalence rates varied wildly (22-84%; White et al. 2009)

► 40% of youth with ASD met criteria for anxiety disorder (van Steensel et al. 2011) compared with 3-8% in TD population (McConachie et al. 2013)

► Specific phobia – 30%; OCD – 17%; Social Phobia - 17%

► Effects of IQ: Low IQ related to higher prevalence of anxiety including social anxiety;

► High IQ associated with higher OCD and SEP (van Steensel et al. 2011)

Facing Your Fears training goal: Increase overlap
Development of Facing Your Fears: Contribution of JFK Partners/LEND

- Clinical work
- Trainees – interdisciplinary from the beginning
- Develop/implement/debrief/revise/
- Over 25 trainees – for research/treatment development
- Over 25 trainees post-manual development

Colleagues/Trainees and Research/Clinical Teams

- Audrey Blakeley Smith, Ph.D.
- Susan Hepburn, Ph.D.
- Lila Kimel, Ph.D.
- Meena Dasari, Ph.D.
- Alison Galansky, Ph.D.
- Brian Wolff, Ph.D.
- Steven Shirk, Ph.D.
- Kristina Kapaush, MPH
- Amy Philofsky, Ph.D.
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- Michelle Sharon, Ph.D.
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- Ellen Lessie, Ph.D.
- Lindsey Washington, Ph.D.
- Laura Sartori-Lemon

FYF Treatment Package – Youth with High-Functioning ASD and Anxiety (ages 8-14)

- Total Duration of treatment: 14 weeks – 1 1/2 hour per session
- Modality: varied; children alone, parents alone, dyads and large group work
- First seven weeks: Define anxiety symptoms, identify anxiety provoking situations, develop a set of “tools” (relaxation, helpful thoughts, emotion regulation, graded exposure)
- Second seven weeks: Identify goals and create stimulus hierarchy, apply “tools” across settings, in-vivo graded exposure, video activity to reinforce core concepts
- Booster session: 4–6 weeks post-treatment
Facing Your Fears: Oral Presentations

<table>
<thead>
<tr>
<th>Exposure Steps Completed in Group</th>
<th>Number of People Observing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deliver a powerpoint to familiar and unfamiliar adults</td>
<td>14</td>
</tr>
<tr>
<td>Deliver a powerpoint to familiar peers and adults</td>
<td>10</td>
</tr>
<tr>
<td>Deliver a powerpoint to familiar peers (e.g., fellow group participants)</td>
<td>5</td>
</tr>
<tr>
<td>Practice delivering power point presentation on a preferred topic out loud at home</td>
<td>0</td>
</tr>
</tbody>
</table>

Face Your Fear Videos

- Public Bathrooms
- Toilets flushing
- Spiders/bees
- Elevators
- Ugly leaves
- Tornadoes
- School buses tipping over
- Going outside
- Going to Highlands Ranch, CO
- Choking
- Dying
- Making mistakes
- Changing clothes in front of others
- The dark
- Miscroorganisms
- Talking to people
- Losing things
- Scary movies
- Getting the flu
- Playing new sports activities with other kids
- Staying home alone
- People who look different
- Change
- Loud noises

State of the State: Research on CBT for Youth with ASD

- **Randomized controlled trials:** (modality varies)
- **Meta-analytic Studies:** Sukhodolsky et al. 2013; Ung et al. 2014; van Steensel et al. 2011

Facing Your Fears Treatment Program for Youth with ASD and Anxiety

- **Initial group treatment study** (Reaven et al. 2009)
  - N=33; significant reductions in anxiety
- **Adolescent pilot** (Reaven et al. 2012)
  - N=24; significant reductions in anxiety and challenging behavior; 46% of teen participants “much improved” or “very much improved
- **Randomized trial with independent evaluator** (Reaven et al., 2012)
  - N=50; Psychiatrically complex, Post-TX - Fewer # of Dx (including loss of GAD); 50% improvement compared to 8.7% TAU – (effect size 1.03); Maintained gains at 6-mos follow-up

Facing Your Fears of Dogs

1. Look at pictures of dog in a book or on the Internet
2. Watch videos of dogs
3. Walk past a dog on a leash, maintaining a distance of 10 ft.
4. Walk past a dog on a leash, maintaining a distance of 5 ft.
5. Stand next to a dog
6. Stand next to a dog and pet it.
**FYF Treatment Program (Continued)**

- Training clinicians in Halifax (Reaven et al. 2014)
  - N=16: Significant improvements in CBT knowledge post-workshop; Excellent treatment fidelity; Significant reductions in parent reported anxiety; 54% improvement
- Telshealth (Hepburn et al. in press)
  - N=33; Excellent fidelity/acceptability. Preliminary efficacy; significant reductions in parent reported youth anxiety. F(1,32) = 8.73, p = .006; Eta squared = .22. Improved parent sense of competence
- Implementation project (In progress): manual only, workshop only, workshop-plus to deliver FYF (UAB; Kennedy Krieger Institute; UNC–TEACCH program; and Cincinnati Children’s Hospital)
  - N=92; Initial results encouraging – with significant decreases in anxiety symptoms for all three conditions; excellent fidelity.

**Real World Success**

- Walking into the classroom, even when late.
- Using public bathrooms at airports, school, etc.
- Giving presentations in class
- Going to another part of the house; outside; left alone
- Turning in homework, making mistakes on tests
- Talking to new people; asking for help at a store

**Future Directions:**

**Bridging the Research to Practice Gap**

- Substantial time lag from proof of concept-efficacy-effectiveness-implementation (Glasgow et al. 2003)
- Critical need to provide Evidenced Based Practice to community settings for children with ASD (Brookman-Frazee et al. 2013; Interagency Autism Coordinating Committee, 2013)
- Need to examine factors that increase the portability, adoption and sustainability of EBP in “real-world” settings
- Potential barriers: time, therapist attitude (too difficult, too inflexible); lack of: resources, supervision, compatibility, cultural sensitivity (Beidas et al. 2013; Lewis & Simons, 2013)

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- Children/Adolescents with ASD and their families
- CBT researchers

**Important Next Steps:**

- Develop manualized interventions to address additional psychiatric conditions that co-occur with ASD
- Examine mechanisms of change
- Modify treatment for school-based settings; mental health centers
- Extend treatment programs to individuals with ASD who have ID and/or minimally verbal
- Develop evidence-based treatment programs for adults with ASD