Anxiety Disorders in Children

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Disclosures

• None

Objectives

• Review anxiety disorder diagnoses and prevalence rates
• Review means of assessing for anxiety disorders in children and adolescents
• Review cognitive behavioral therapy (CBT) and its use in treating children and adolescents with anxiety disorders
• Review evidence-based pharmacotherapy
Anxiety Disorders per DSM-IV TR

- Separation Anxiety Disorder
- Social Phobia
- Generalized Anxiety Disorder
- Specific Phobia
- Obsessive-Compulsive Disorder
- Acute Stress Disorder
- Posttraumatic Stress Disorder
- Panic Disorder with or without Agoraphobia

Anxiety Disorders in Children

- Most common class of psychiatric disorders in children and adolescents
- Comorbidity is common
- At higher risk of anxiety disorders and major depressive disorder as adults
Anxiety Disorders in Children

- Separation anxiety disorder is more prevalent in childhood
- Generalized anxiety disorder, social phobia, and panic disorder is more prevalent during adolescence

Prevalence of Mental Disorders in Children and Adolescents, Aged 9-17 Years

<table>
<thead>
<tr>
<th>Disorder</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conduct disorder</td>
<td>3.7</td>
</tr>
<tr>
<td>ADHD</td>
<td>4.1</td>
</tr>
<tr>
<td>Depression</td>
<td>6.2</td>
</tr>
<tr>
<td>ODD</td>
<td>6.2</td>
</tr>
<tr>
<td>DBD</td>
<td>10.3</td>
</tr>
<tr>
<td>Anxiety disorder</td>
<td>13.0</td>
</tr>
</tbody>
</table>

ADHD = attention-deficit/hyperactivity disorder; ODD = oppositional defiant disorder; DBD = disruptive behavior disorders
Includes major depression and dysthymia.
Includes simple phobia, social phobia, specific phobia, separation anxiety disorder, panic disorder, agoraphoria, anxiety disorders, avoidant disorder, and obsessive-compulsive disorder.


Causative Factors

- Biological Factors
  - Genetic Predisposition
  - Respiratory Dysregulation
- Environmental Factors
  - Modeling and Competition in Family
  - Critical and Over-Controlling
Causative Factors

- Psychological Factors
  - Overachiever
  - Cognitive Biases
    - Preferential attention to threatening cues

Maintenance of Anxiety

- Conditioning Occurs
  - Child learns that a particular situation is "dangerous" when he/she experiences anxiety in the situation
  - Avoidance of any reminders helps maintain this belief/connection

Assessment

- Normal fears/worries vs. Clinical levels of anxiety
- Causes clinically significant distress or impairment in social, academic, or other important areas of functioning
- About 70% of young children experience transient nighttime fears considered to be developmentally normal (Muris, 2001)
Assessment

• Interview of parents
• Interview of child
• Collateral information from teachers
• Consider co-morbid conditions
• Consider medical conditions
• Substance use disorder in teenagers

Assessment Tools

• Broad Measures
  • Child behavior checklist (Achenbach):
    • http://www.aseba.org
  • Ages and Stages Questionnaire
    • http://agesandstages.com

http://www.neurotransmitter.net/anxietyscales.html
Cognitive Behavioral Therapy

Thoughts

Behaviors

Emotions

https://www.mhs.com
CBT for Anxious Youth

- 16+ outcome studies
- 6-12 year olds, 13-17 year olds
- 16 sessions approximately
- GAD, SAD, phobias, panic disorder
- 50-65% no longer met anxiety diagnosis per parent, teacher and child report
- Gains maintained years later


Workbooks Used by CBT Therapists

Steps of Kendall's "Coping Cat"

- F=feeling frightened
  - Anxiety thermometer
  - Physical symptoms
- E=expecting bad things to happen
  - Catching anxious thoughts
- A=attitudes and actions that help
  - Challenging anxious thoughts
  - Relaxation tools
  - Graduated exposure
- R=reward yourself
Education

- Psychoeducation about anxiety, fear, worry
- “fight, flight, or freeze”
- Anxiety Thermometer
  - daily log of anxiety level, physical symptoms, triggers

Externalizing the Problem

- The power of language
  - “the dragon or the worry bully”
- For older children and adolescents, learning about the “fight, flight or freeze response”
- Parent: “that dragon is really giving you a hard time today” vs. “you are such an anxious child”

Lowering Stress Level

- Exercise
- Relaxation strategies
  - “floppy doll vs. upright robot” or progressive muscle relaxation
  - “belly breathing” with a book vs. hyperventilating
  - Visual imagery to “take a special journey”
    - Indigo Dreams CD for children and teens
    - Note: requires practice daily for 2 weeks
    - Gives parents something to practice with kids, suggest when stress goes up
    - Not the most powerful tool
Challenging Unhelpful Thoughts

• Cognitive restructuring
• Changing thoughts rather than feelings
  • Sound in the night
• Developmentally appropriate applications
  • Cartoon strips
  • Heroes that “boss back the worry bully”
  • “scram, shut up, be quiet little dragon”

Cognitive Restructuring Tools

• Catching negative thoughts
• Challenging them
  – What is the worst that could happen?
  – Best thing to happen?
  – Most likely thing to happen?
  – Could I survive the worse thing?
  – What would I tell a best friend to think?

Creating an Anxiety Hierarchy: Setting out Goals for Challenges

• Use anxiety thermometer and log to build a “fear ladder”
• Contract with the child to approach feared situations rather than avoid
• Earn rewards!
Exposure

- Help child discover that situation is not dangerous
- Consider different forms of exposure
  - Imaginal vs. In Vivo
    - North – Work with him on making mistakes and being assertive; consider doing interoceptive exposure

Being brave: therapist, child, and parents

- Make sure parents and child are “on board”
- Therapist is “gentle bully” and models exposure steps
- Child sets pace but must make progress
- Parents observe therapist, then coach child at home
- Graduated exposure not flooding
- Be playful using specific praise
- Daily homework

Empowering Anxious Children

- Parent communication training
- Give children choices rather than deciding for them
- Allowing children to struggle, make mistakes and learn by trial and error
- Labeling and accepting children’s emotional responses
- Promoting children’s development of creative self-help strategies
- Attending to “brave behaviors” and ignoring anxious behaviors (crying, frequent questions)

Woods et al, 2006
How to learn CBT

- Readings
- Workshops and Conferences
  - Association for Behavioral and Cognitive Therapies (www.abct.org)
- Training case—observe experienced CBT clinician
- Ongoing supervision for several cases—videotape review, live supervision, co-therapy best
- New wave: computer-assisted “Coping Cat” (Kendall & Khanna, 2008b) (www.workbookpublishing.com)

How to find a CBT therapist

- www.abct.org lists cognitive behavioral therapists by state
- www.opa.org lists psychologists and their specialty

Pharmacotherapy

- Two medicines have FDA indications for non-OCD anxiety disorders
  - Doxepin (≥ age 12 years)
  - Meprobamate (≥ age 6 years)
- Early pharmacologic studies for non-OCD anxiety disorders
  - Mixed evidence for TCAs (IMI and CMI)
  - Benzodiazepines show no clear efficacy
Pharmacotherapy

• Several medications have FDA indications for pediatric OCD
  – Fluvoxamine (≥ age 8 years)
  – Sertraline (≥ age 6 years)
  – Fluoxetine (≥ age 7 years)
  – Clomipramine (≥ age 10 years)

NEJM, 2001, 344(17): 1279-1285

• 8 wk, Double-blind, placebo-controlled trial
• N=128, ages 6-17 years
• Social phobia, GAD, or separation anxiety d/o
• Flexible dosing used with max dose 250 mg in < 12 y/o’s & 300 mg in 12-17 y/o’s

NEJM, 2001, 344(17): 1279-1285

• Outcome Measures: Pediatric Anxiety Rating Scale (PARS) & CGI
• Results:
  – Fluvoxamine > placebo (76% vs 29%)
  – Generally well tolerated
  – Significant SE’s: Abdominal discomfort and increased motor activity

NEJM, 2001, 344(17): 1279-1285
Fluoxetine

- Single site, 12 week, DB, placebo controlled trial
- N = 64, Ages 7-17 years
- Randomized to fluoxetine 20 mg or PCB
- Outcome: CGI, PARS, SCARED, CGAS
- Results:
  - Fluoxetine > Placebo (61% vs 35%) but did not separate until 9th week of trial

Birmaher, J Am Acad Child Adolesc Psychiatry, 2003, 42(4)

Methodology

- 12 week, Multi-Site, DB, placebo controlled trial
- N = 488, ages 7-17 (mean age 10.7 ± 2.8)
- GAD, Separation Anxiety Disorder, or Social Phobia or combination (78.7%)
- Comorbidities allowed including ADHD on stimulants

Methodology

- Randomized to four arms
  - Sertraline (N = 133)
    - Fixed-Flexible dosing schedule (25 mg – 200 mg)
  - Medication Placebo (N = 76)
  - CBT (N = 139)
    - 14 one hour sessions using Coping Cat program
  - CBT and Sertraline (N = 140)
    - Subjects knew they were receiving active sertraline in this group


Outcome Measures

- Categorical and dimensional ratings of anxiety severity and impairment at baseline and at 4, 8, and 12 weeks
  - Clinical Global Impression-Improvement Scale (CGI)
  - Pediatric Anxiety Rating Scale (PARS)
  - The Children’s Global Assessment Scale (CGAS)


Results

- Very much or much improved on CGI
  - Combination therapy – 80.7%
  - CBT – 59.7%
  - Sertraline – 54.9%
  - Placebo – 23.7%
  - Combination was superior to both monotherapies (P<0.001)
  - Similar results with PARS

**Adverse Events**

- No increase in suicidal or homicidal ideation when sertraline used
- No child attempted suicide
- Among children in the CBT group, there were fewer reports of insomnia, fatigue, sedation, and restlessness or fidgeting than in the sertraline group


**Resources for Clinicians**

- Indigo Dreams for kids and teens (CDs ordered through Amazon)

**OHSU Child and Adolescent Psychiatry Clinic**

- Doernbecher Children's Hospital
- 5 faculty members
- 6 Child and Adolescent Psychiatry Fellows
- 8 General Residents in Psychiatry
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