

# Treatment of Anxiety Disorders in Children and Teens

**Zoya Popivker, D.O.**

Child and Adolescent Psychiatrist

Northwell Health



**Presenter:**

Zoya Popivker, D.O.

Northwell Health  
zpopivker@northwell.edu  
516-927-1630

# Disclosures

Neither I nor my spouse/partner has a relevant financial relationship with a commercial interest to disclose.

# Anxiety: Objectives for Primary Care

- Gain resources for anxiety education
- Discuss the role of avoidance in anxiety disorders
- Understand the most utilized method of psychotherapy for Anxiety Disorders
- Identify the medication class of choice in pediatric Anxiety Disorders



# Emily

- 8 yo girl who is brought in because of stomach aches
- Evaluated by GI and no medical condition identified
- Difficulties getting her to school since kindergarten
  - Crying at drop off, clingy to parent
- In 2<sup>nd</sup> grade missed 10 days of school
- Now in 3<sup>rd</sup> grade, has **missed 20 days** of school to date
  - Even when she gets to school, she goes to nurse often with stomach aches, sometimes the only resolution is mother picking her up early
- No academic issues
- If mom unable to pick her up Emily calls frequently to “check in” and make sure that “nothing bad happened”
- At home she appears comfortable, pleasant, watches TV
- Maintains friendships with small group of girls she has know since pre-K
  - Does not enjoy play dates or want sleepovers at friend’s homes
- During office visit, she is quiet, but smiles easily
- PE is unremarkable
- No known trauma/loss
- SCARED: 38

# What treatment would you recommend?

- a. Write a letter for Home Instruction
- b. Refer for therapy and collaborate with the school
- c. Start a medication for anxiety
- d. Wait and monitor for now

# Early Intervention For “At Risk” Kids

1. Lifelong Anxious Temperament
2. Family History of Anxiety Disorders

# Goals of Early Intervention

- Parents education about anxiety
- Prevent Anxiety Disorders in children with anxious temperament
  - Reward and model curiosity, exploration
  - Reduce avoidance and overprotectiveness
- Prevent generational transmission of Anxiety

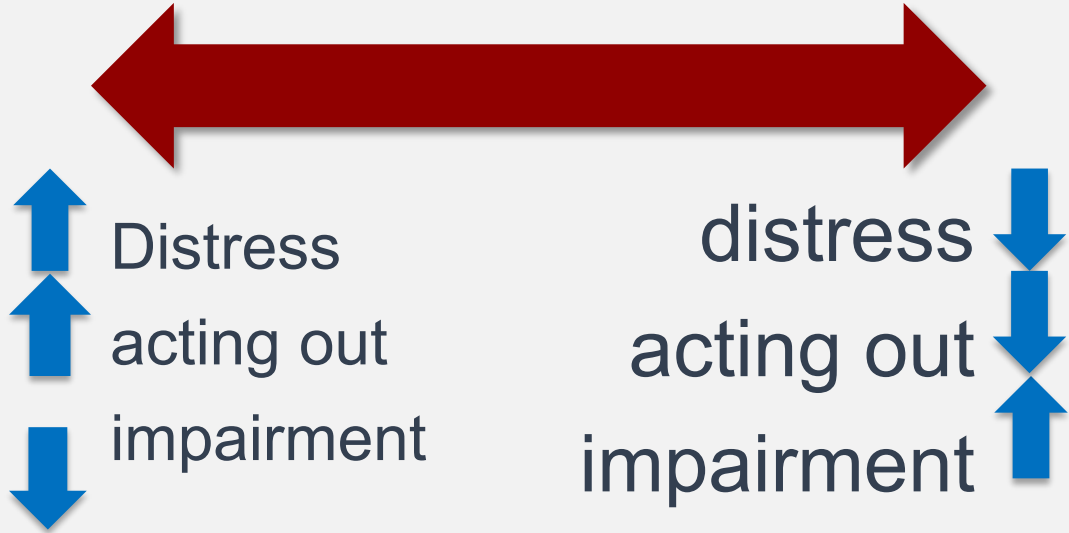
# Anxiety Education

- What is Anxiety?
  - Anxiety is normal and helpful in small doses
- Why me?
  - Genes and temperament
  - Life experiences
  - Development of “thinking traps”
  - Escape and avoid = more anxiety

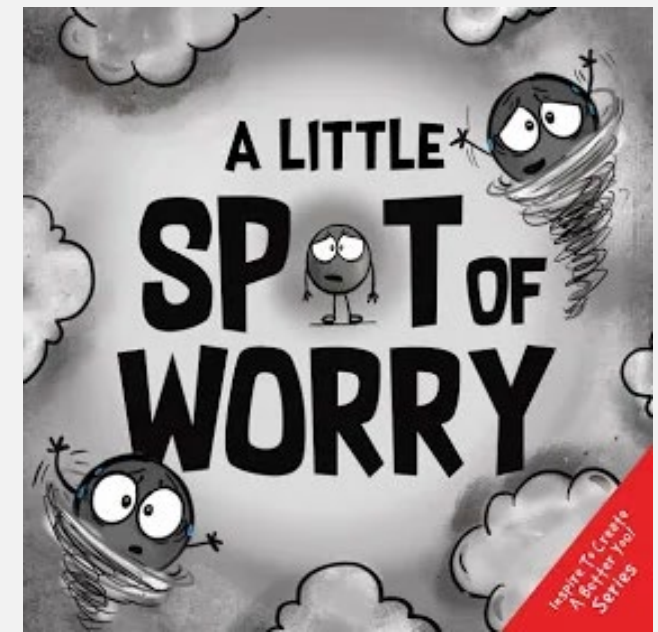
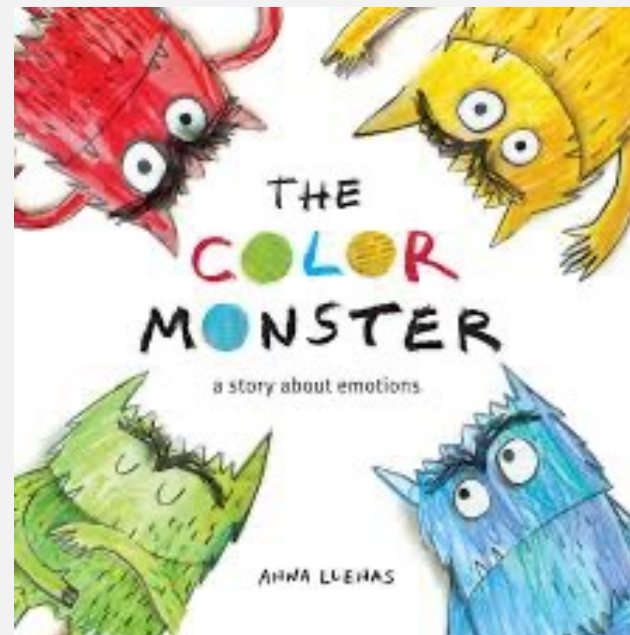
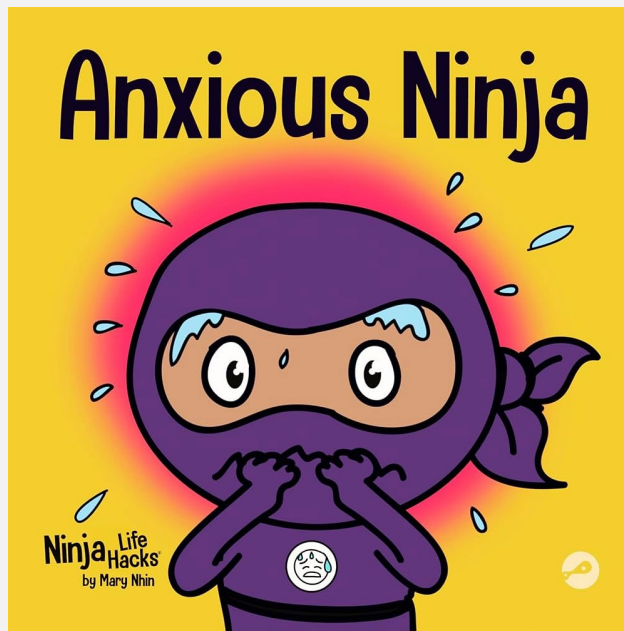
# Managing Anxious Children:

**100% Accountability**

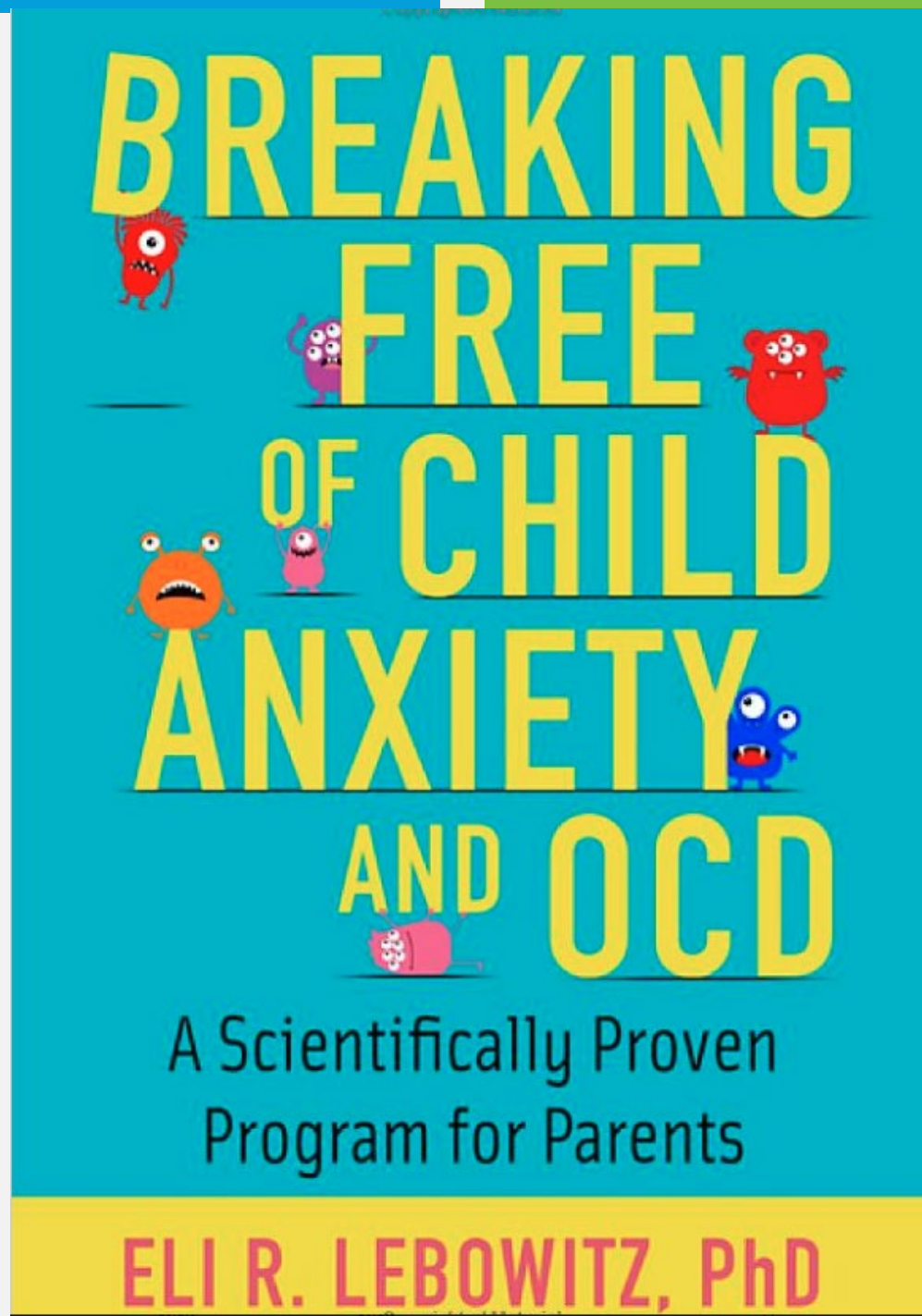
**100% Accommodation**



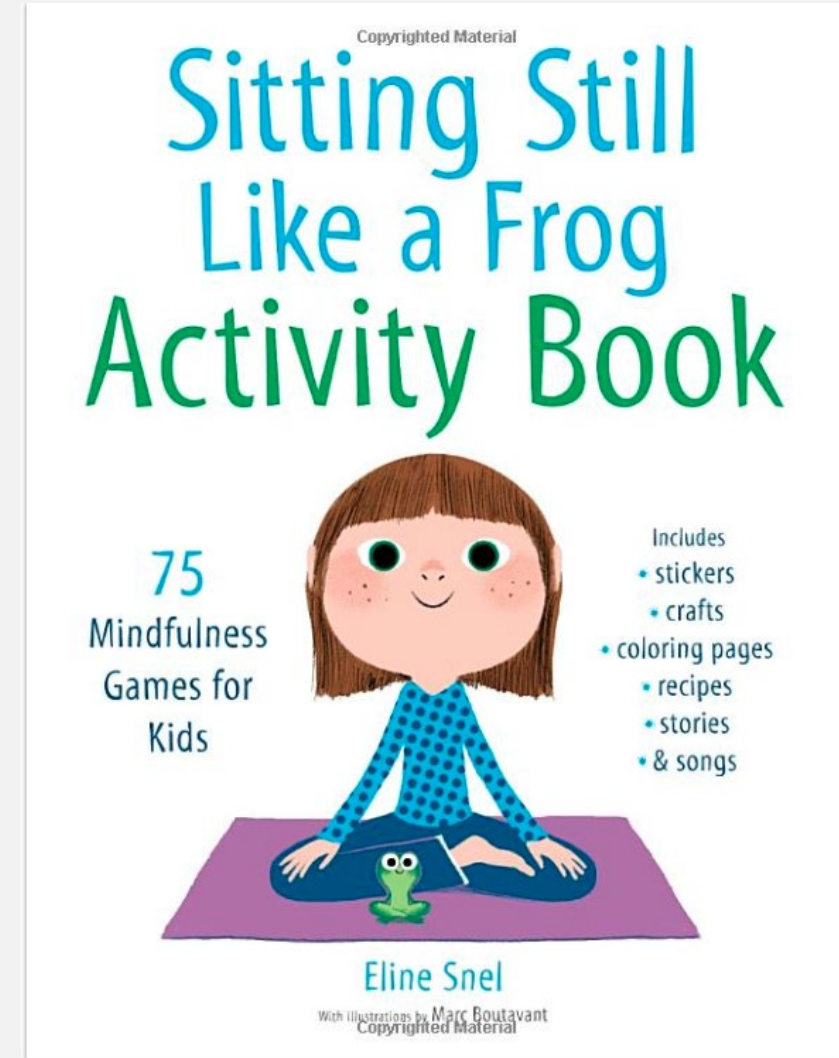
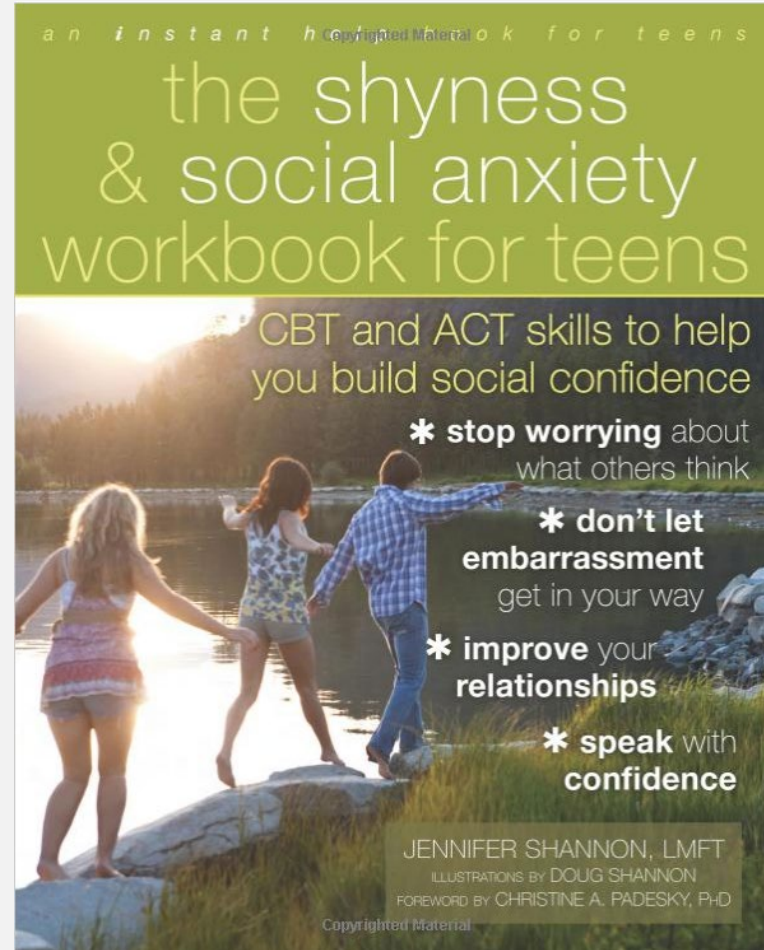
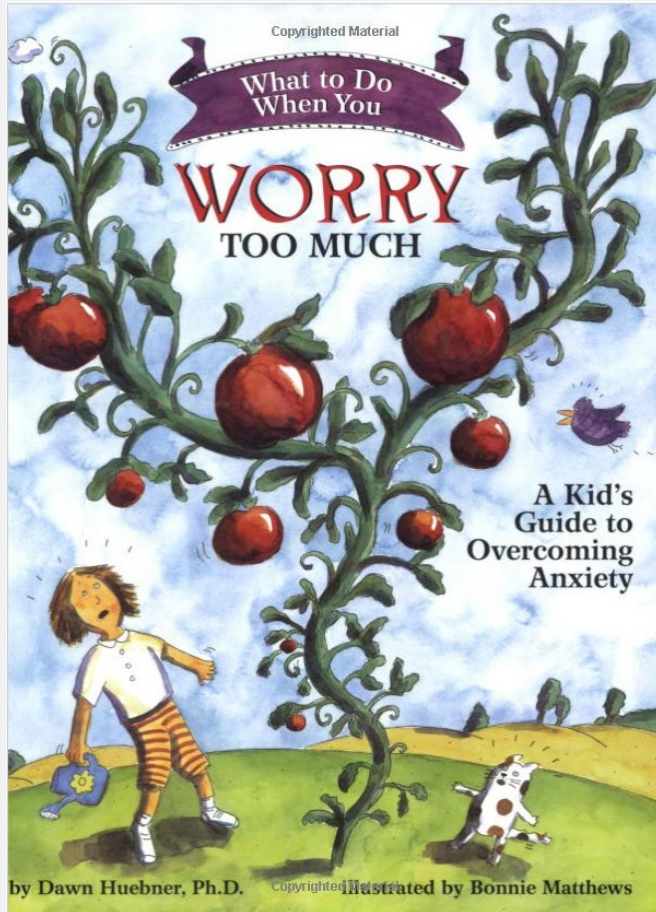
# BOOKS FOR PRESCHOOLERS



# Books for Parents (and their doctors!)



# Books for Kids and Teens



# Treatment of Anxiety Disorders: Depends on Severity

Consider the 3 'Ps': Pervasive, Persistent, imPairing

	SCARED	Distress	Avoidance
Mild	<30	Some	Minimal
Moderate	30-40	Good deal	Some
Severe	41+	A lot	A lot

# Mild Anxiety

# Mild Anxiety Treatment

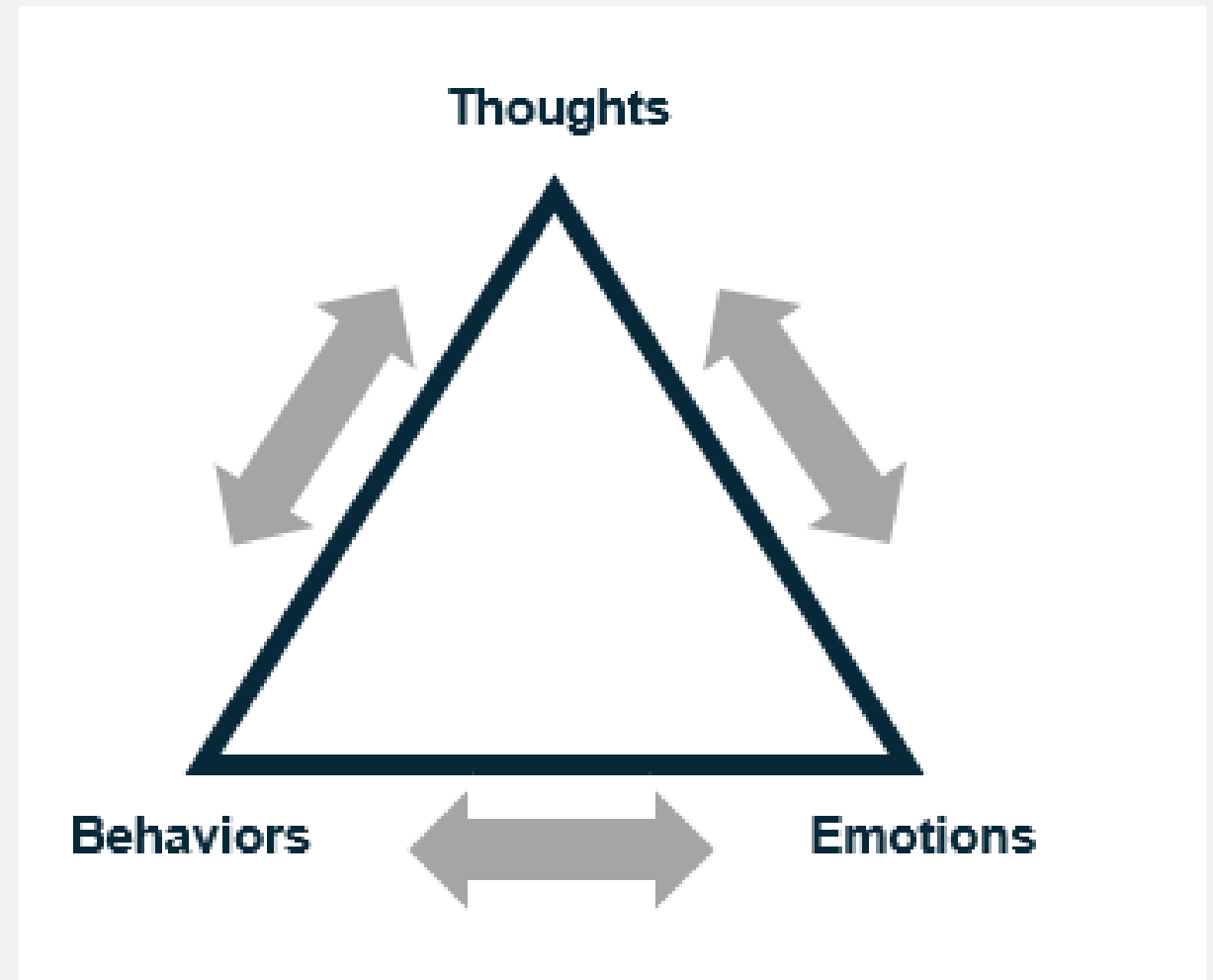
- Educate, support, monitor
- Bibliotherapy
- Cognitive Behavioral Therapy (CBT) skills in the office

# CBT Goals

- Extinguish avoidance behavior
- Increase healthy problem-solving
- Facilitate insight and self-efficacy
- Solidify gains and promote generalization

# CBT Concepts

- Teach self-soothing and **somatic management**
- Identify and change **maladaptive thinking**
- Increase proactive approach behavior (**graduated exposure**)



# Somatic Management

## Goals:

- Develop tolerance of normal, expected levels of anxiety
- Learn & utilize strategies to calm self during stressful/ fear provoking situations or tasks

## Methods:

- Breathing retraining
- Progressive Muscle Relaxation

# Breathing Retraining

- Calms the nervous system
- Stimulate the vagus nerve
- Lowers heart rate and blood pressure
- Reduces stress hormones

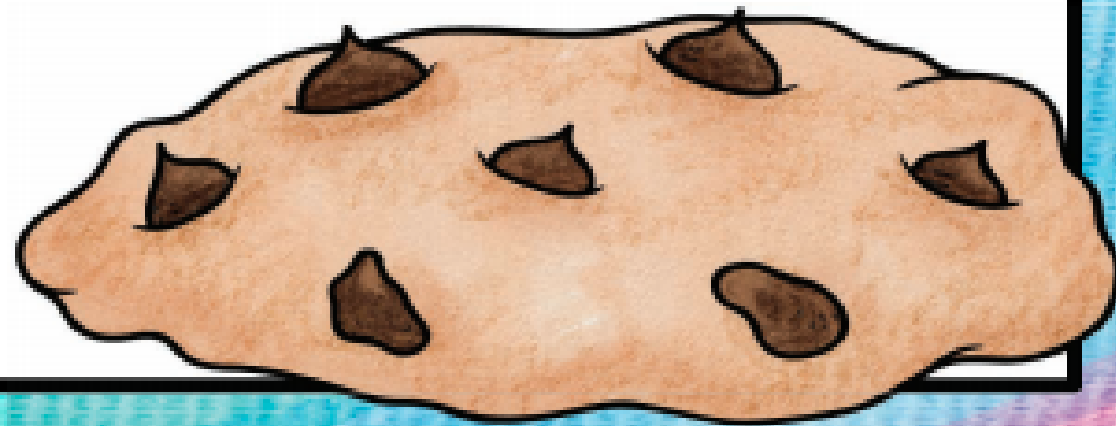
# Belly Breath

*Sit in your chair with your body tall, shoulders back, eyes closed. Lay your hands in your lap. Nice and relaxed.*

*Picture that I just baked some chocolate chip cookies. Take a deep breath in and smell the cookies. Hold that chocolatey smell for 3, 2, 1.*

*Slowly breathe out.*

*Let's repeat that again.*



# Progressive Muscle Relaxation

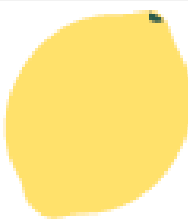
- Two step technique: tension and relaxation
- Pay attention to the feeling of relaxation when releasing the contracted muscle
- Practice daily, bedtime is often ideal
- Takes as little as 10 minutes per day to practice
- Younger child: parent reads the script, can use fewer body parts
- Can then utilize in other stressful situations

# Relaxation Script Grades K-4 (Ollendick, 1978)

To begin the relaxation session, have the children sit comfortable in their chair and close their eyes. Soft, slow music can be playing in the background. When reading the script, speak in a soft, even tone. Pause between sentences.

- **Hands and Arms**

Pretend you have a whole lemon in your left hand. Now squeeze all the juice out. Feel the tightness in your hand and arm as you squeeze. Now drop the lemon. Notice how your muscles feel when they are relaxed. Take another lemon and squeeze it. Try to squeeze. Try to squeeze it harder than you did the first one. That's right. Real hard. Now drop your lemon and relax. See how much better your hand and arm feel when they are relaxed. Once again, take a lemon in your left hand and squeeze all the juice out. Don't leave a single drop. Squeeze hard. Now relax and let the lemon fall from your hand. *(repeat this process with the right hand and arm.)*



- **Arms and Shoulders**

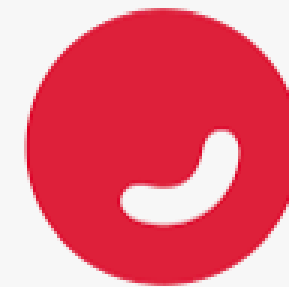
Pretend you are a furry, lazy cat. You want to stretch. Stretch your arms out in front of you. Place them up high over your head, way back. Feel the pull in your shoulders. Stretch higher. Now just let your arms drop back to your side. Okay, kittens, let's stretch again. Stretch your arms out in front of you. Raise them over your head. Put them back, way back. Pull hard. Now let them drop quickly. This time let's have a great big stretch. Try to touch the ceiling. Stretch your arms way out in front of you. Raise them way up high over your head. Push them way, way back. Notice the tension and pull in your arms and shoulders. Hold tight now. Great. Let them drop very quickly and feel how good it is to be relaxed. It feels good and warm and lazy.



# Muscle Relaxation: Script Conclusion

- Stay as relaxed as you can.
- Let your whole body go limp and feel all your muscles relaxed.
- As you go through the day, remember how good it feels to be relaxed.
- Sometimes you have to make yourself tighter before you can be relaxed, just as we did in these exercises.
- Practice these exercises every night to get more relaxed.
- When you are a really good relaxer, you can help yourself relax at school.
- Just remember the turtle, or the jawbreaker, or the mud puddle, and you can do these exercises and nobody will know.
- You've done a good job. You're going to be a super relaxer.

- Headspace
- Calm
- Insight Timer
- Stop, Breathe and Think



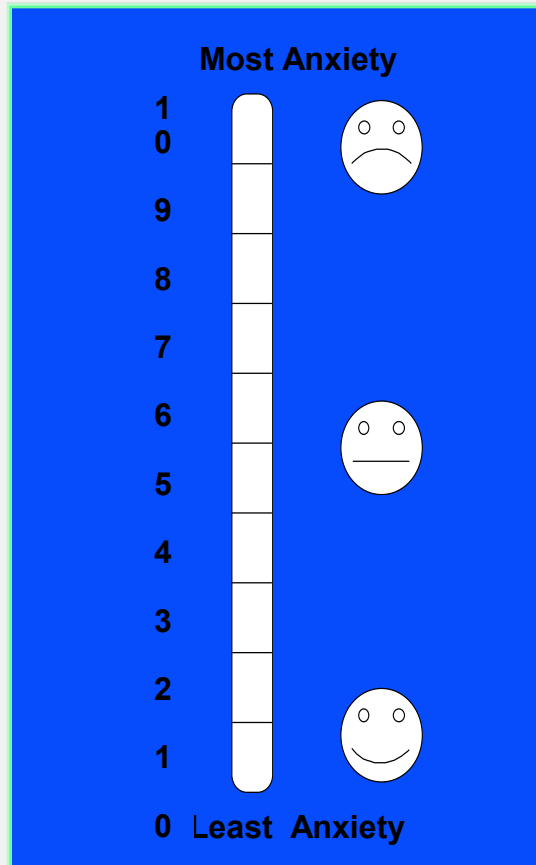
TEN  
PERCENT  
HAPPIER

Q: What part of CBT is known to have the most powerful impact in lowering anxiety?

- a. Psychoeducation – understanding anxiety
- b. Relaxation Strategies – deep breathing, meditation
- c. Exposure – doing what makes the patient anxious
- d. Identify and change maladaptive thinking

# Anxiety Fear Hierarchy

Fear Thermometer (SUDS)



Separation Anxiety Fear Hierarchy

Situation	SUDS
Spending night at friend's house	10
Spending 2 hours at friend's— w/o mom	8
Spending 30 mins at friend's— w/o mom	7
Mom leaving home for 30 minutes	6
Mom leaving home for 15 minutes	5
Mom going out to get mail	3
Mom going in a different room—nighttime	2

Slide courtesy of Drs. Albano and Rynn

# Moderate Anxiety

Exposure-based CBT  
or  
Psychopharmacology

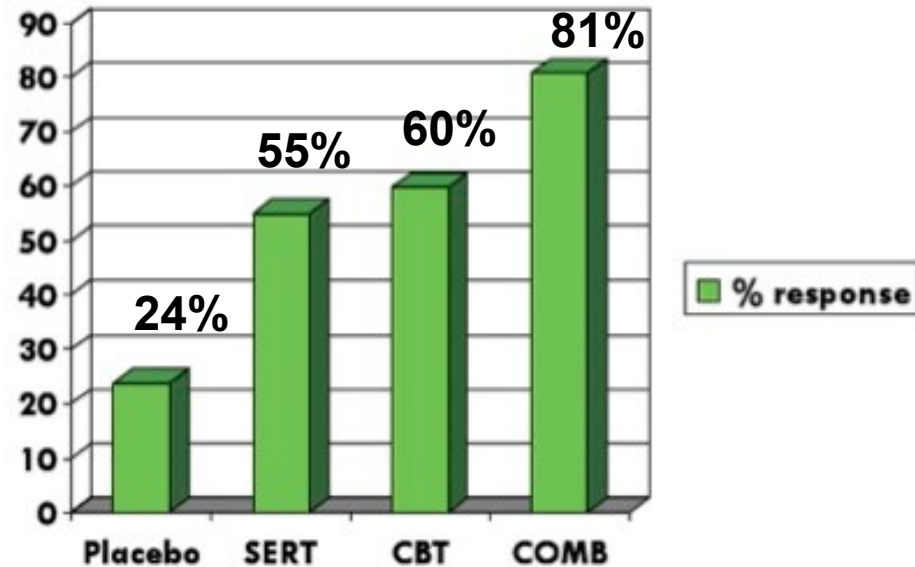
# CAMS - Child Anxiety Multimodal Study Overview

- Separation Anxiety DO, Social Phobia, Generalized Anxiety DO
- N = 488, ages 7-17
- 12-week acute trial: CBT, Sertraline, Comb, Pill PBO
- Pills-only double blinded
- Random assignment, blind Independent Evaluators
- Phase II: 6 month maintenance for treatment responders

# Child Anxiety Multimodal Study CAMS

CAMS (Child-Adolescent Anxiety Multimodal Study):

COMB > CBT = SRT > PBO



SRT=sertraline, CBT=cognitive-behavioral therapy, COMB=combination

Walkup JT et al, *N Engl J Med*, 2008;359:2753-2766

CGI-I 1 and 2 (ITT, LOCF)

# Child–Adolescent Anxiety Multimodal Study

Mean dose of SER/PBO at final visit:

- COMB: 134 mg/day
- SER: 146 mg/day
- PBO: 176mg/day

Walkup JT, Albano AM, Piacentini J, Birmaher B, Compton SN, Sherrill J, Ginsburg GS, Rynn MA, McCracken J, Waslick B, Iyengar S, March JS, Kendall PC. Cognitive-behavioral therapy, sertraline and their combination for children and adolescents with anxiety disorders: acute phase efficacy and safety. *New England Journal of Medicine*. Dec 25, 2008.

# Q: What medication have you prescribed for anxiety?

- a. SSRI (sertraline, fluoxetine, escitalopram)
- b. SNRI (duloxetine, venlafaxine)
- c. Benzodiazepine (lorazepam, alprazolam, clonazepam)
- d. Buspirone
- e. None

# Serotonin Reuptake Inhibitors with FDA Approval

- Approved for OCD
  - Sertraline  $\geq$  6 yrs (SSRI)
  - Fluoxetine  $\geq$  7 yrs (SSRI)
  - Fluvoxamine  $\geq$  8 yrs (SSRI)
  - Clomipramine  $\geq$  10 yrs (TCA)
- Approved for Depression
  - Fluoxetine  $\geq$  8 yrs (SSRI)
  - Escitalopram  $\geq$  12 yrs (SSRI)
- Approved for Non-OCD Anxiety
  - Escitalopram  $\geq$  7 yrs GAD (SSRI)
  - Duloxetine  $\geq$  7 yrs GAD (SNRI)

# SRI Efficacy for Anxiety Disorders

- Social Anxiety DO, Generalized Anxiety DO and Social Phobia
  - Fluvoxamine – RUPP, 2001
  - Fluoxetine – Birmaher et al, 2003
  - Sertraline (CAMS) – Walkup et al, 2009
- Social Phobia
  - Paroxetine - Wagner et al, 2004
  - Fluoxetine - Beidel et al 2007
  - Venlafaxine - March et al, 2007-
- Generalized Anxiety DO
  - Sertraline - Rynn et al., 2001
  - Venlafaxine, Rynn et al., 2007
  - Duloxetine, Strawn et al 2015
  - **Buspirone in GAD, unpublished negative trial**

# When to Choose SSRI Treatment with Moderate Anxiety

- Patient and Parent preference
- Too anxious to start CBT
- CBT not available
- CBT has failed or only partially resolved symptoms

# Severe Anxiety

Exposure-based CBT

and

Psychopharmacology

# SSRI

Brand (off-label for non-OCD anxiety)	Generic	Target Dose	Starting Dose
Zoloft	Sertraline	25-200 for kids and adolescents	Start at 12.5-25 mg
Prozac	Fluoxetine	10-60 for kids and adolescents	Start at 5-10 mg
Lexapro	Escitalopram	10-20 for adolescent	Start at 5 or 10 mg

# SSRI How-To: Part I

- Start at a dose lower than the expected therapeutic dose (fluoxetine 10 mg instead of 20 mg or sertraline 12.5mg instead of 25mg)
- If there are no side effects, go up in a week.
- Warn families that the early doses are to acclimate and test the waters.
- Get to a therapeutic dose in 2-4 weeks (clinical judgement).
- Patients should respond somewhat to therapeutic dose in 2-3 weeks.
- If no response, increase dose.
- If some response, wait 4-6 weeks (for full response to take effect) to decide if dose should be increased.

# SSRIs

- Anxiety often needs higher doses
- Start with lower doses due to hypervigilance for side effects
- Warn about side effects
- Start low BUT do not forget to go up—Most treatment failure is just a failure to raise the dose enough!
- Younger kids respond well to all treatments but also have more side effects from meds
- Continue for 12 months of remission before tapering
- Plan taper around expected stressors

# SSRI Side Effects

- Common Side effects of SSRI's:
  - Dry mouth
  - GI: Constipation, Diarrhea
  - Sweating, rashes
  - Sleep disturbance
  - Sexual dysfunction
  - Irritability
  - “Disinhibition” (risk-taking behaviors, increased impulsivity)
  - Agitation or jitteriness
  - Headache
  - Appetite changes

# Side Effects

- More serious side effects
  - Serotonin syndrome (fever, hyperthermia, restlessness, confusion, etc)
  - Hypomania
  - Discontinuation syndrome (dizziness, drowsiness, nausea, lethargy, headache)
  - Suicidality

# Other Meds for Anxiety

- SNRI—(Duloxetine) when failed SSRIs
- Evidence is not there to use the following as first or second line treatments:
  - Antihistamines
  - Beta blockers
  - Benzodiazepines
  - Buspirone



Anxiety Disorders:  
**Parents'**  
**Medication Guide**

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# Take-aways

- Early intervention with anxiety makes a difference.
- The pediatrician has a unique opportunity to identify anxious children.
- The pediatrician's office is an ideal setting to start treatment for anxiety.
- Medication and psychological approaches are effective for anxiety management. Medication should not be a last resort.
- Tools for management of anxiety can empower children and their parents.

# Thank You!

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