

Integrative Pain and Symptom Management

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I have no conflicts of interest to disclose



OUTLINE

- Pain terminology
- Mechanisms and moderators of chronic pain
- Mind-body techniques
- Other non-pharmacologic pain management
- Medical cannabis
- Finding providers

PAIN IS IMPORTANT!

- A protective mechanism that is vital to living in an environment inherently fraught with potential dangers
- An adaptive response that protects the organism and/or allows for the healing process
- An unpleasant somatic or visceral sensation associated with actual, potential, or perceived tissue damage

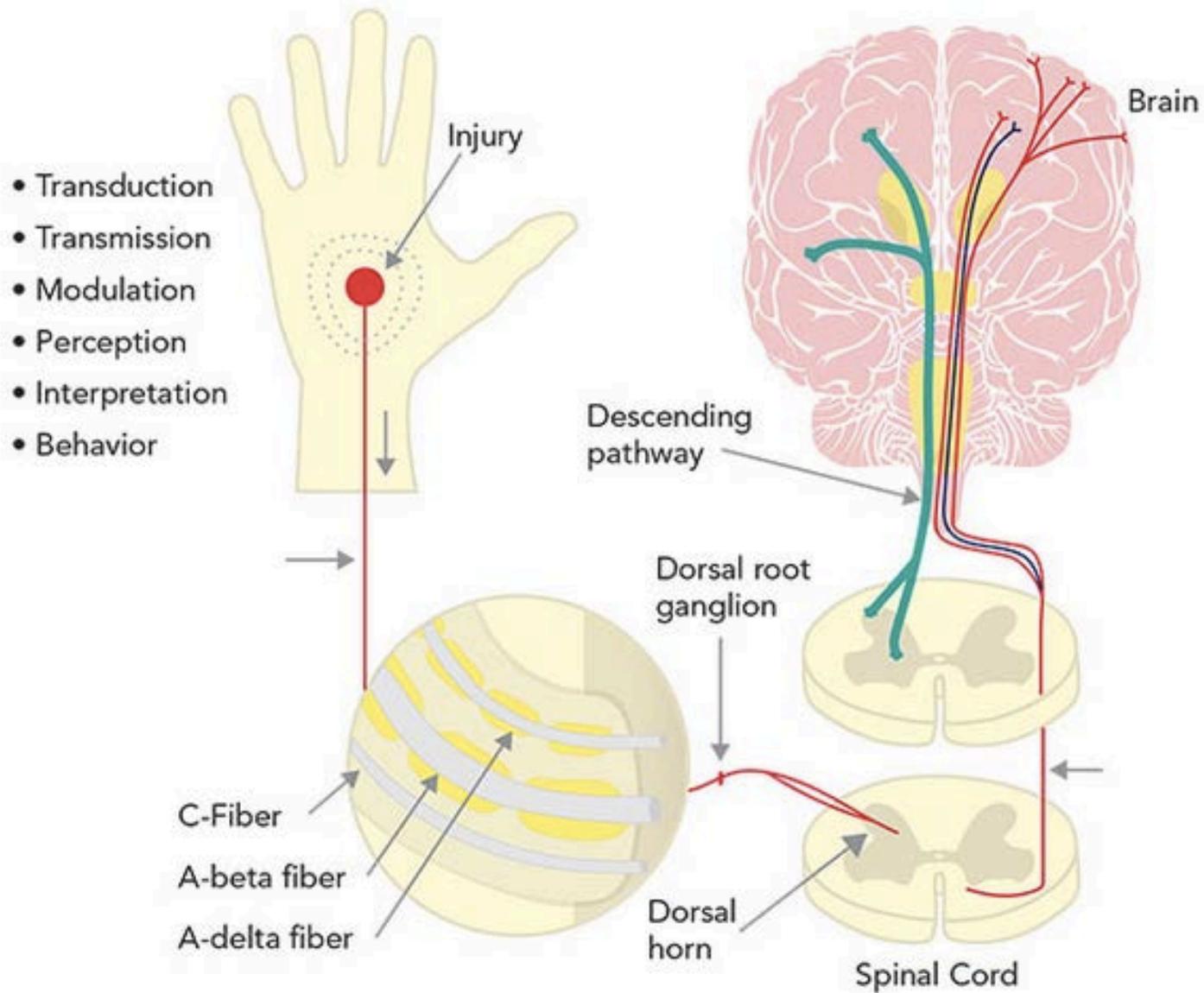


Figure 2.1. The route of pain signals from periphery to the brain.

WHAT IS PAIN?

- “a somatic perception containing:
 - (1) a bodily sensation with qualities like those reported during tissue-damaging stimulation,
 - (2) an experienced threat associated with this sensation, and
 - (3) a feeling of unpleasantness or other negative emotion based on this experienced threat”

Price, DD. Psychological Mechanisms of Pain and Analgesia. In Pain Research and Management, Vol. 15, IASP Press, Seattle 1999

WHAT IS PAIN?

- **Nociceptive:** the afferent signal produced in the peripheral or central nervous system by noxious stimuli that have the potential to cause tissue damage
 - Mechano-receptors
 - Thermo-receptors
 - Chemo-receptors
 - Somatic and/or visceral

WHAT IS PAIN?

- **Neuropathic:** pain due to injury to or dysfunction of some part of the peripheral or central nervous system
 - Complex Regional Pain Syndrome (CRPS)
 - Spinal cord injury
 - Trauma
 - Autoimmune and degenerative neuropathies
 - Phantom limb pain
 - Effects of cancer and its treatment
 - Toxic and metabolic neuropathies

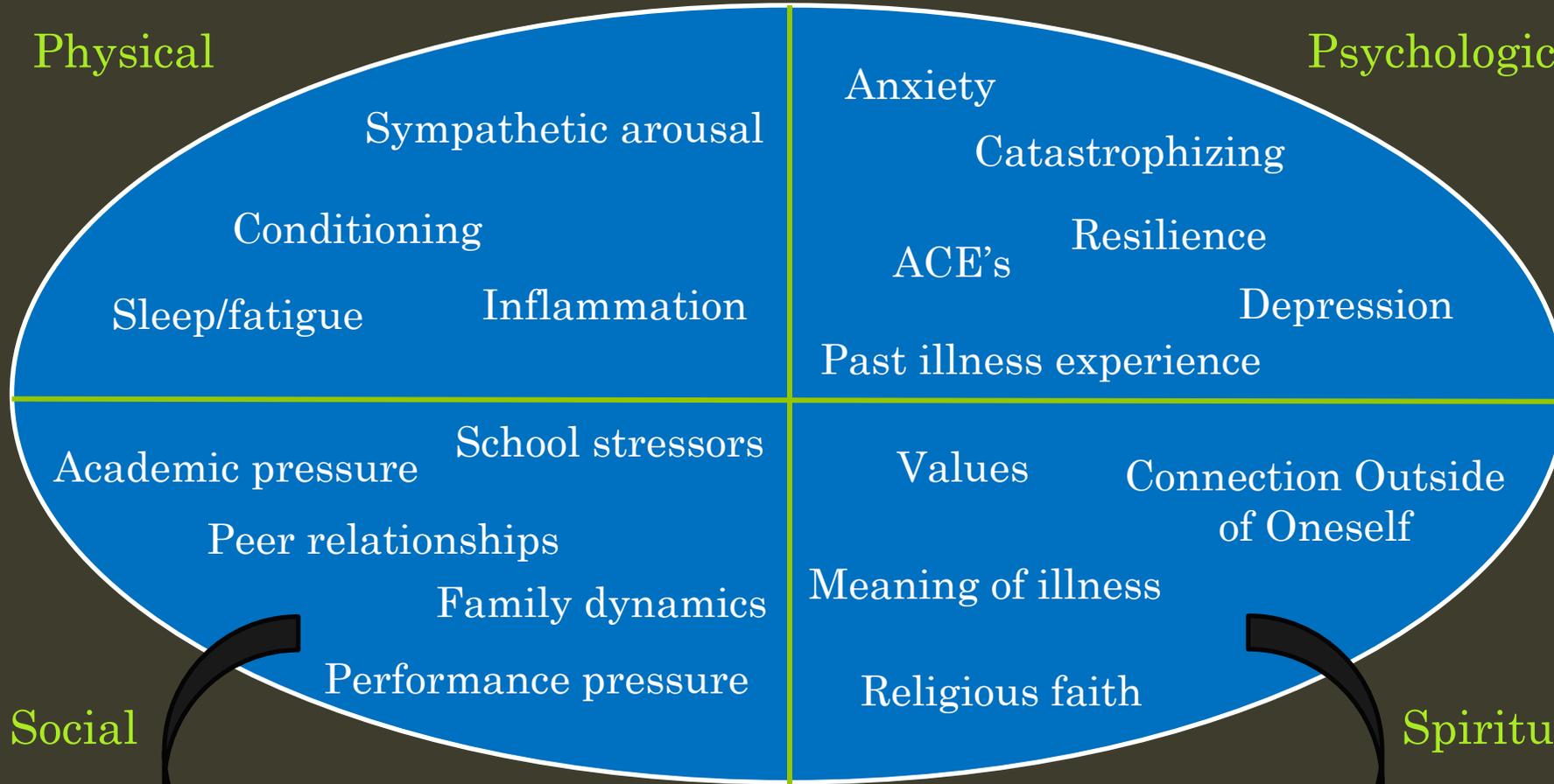
PERSISTENT (CHRONIC) PAIN

- Pain which persists **past the normal time of healing** -Bonica, 1953
- Pain which is **disproportionate to the nociceptive input**
- A maladaptive response

tickling pinch sprain neuritis broken bone
Light touch bump paper cut migraine active arthritis severe burn

Physical

Psychological



Social

Spiritual

Experience of Pain

WHAT IS PAIN?

- All pain is a subjective sensory and emotional experience.
- Influenced by biologic, psychological, cognitive, and social variables.
- Sensory input is ascribed meaning by limbic and cortical brain regions
- Patient-specific responses are related to fears, hopes, expectations and memories



MIRROR BOX THERAPY



NON-PHARM INTERVENTIONS

- Hot or cold compresses
- Massage (myofascial rel; neuromuscular)
- TENS unit
- Aromatherapy
- Sleep hygiene
- Physical activity
- Art/Art therapy
- Music
- PT and OT



**SHE SAID GET A TENS
MACHINE**

**I BOUGHT A TWENTIES
MACHINE**

NON-PHARM INTERVENTIONS

- Traditional Chinese Medicine/Acupuncture
- Manual therapies
 - Massage
 - Chiropractic
 - Osteopathy
- Naturopathy
- Homeopathy
- Ayurveda
- Yoga (Iyengar)



NON-PHARM INTERVENTIONS

- Self-regulation:
 - Distraction
 - Take a nap
 - Go for a walk
 - Talk with a friend
- Mind-body:
 - Biofeedback
 - Cognitive-Behavioral Therapy
 - Clinical Hypnosis (and Guided Imagery)
 - Autogenic training
 - Relaxation Techniques
 - Mindfulness Meditation
 - Habit Reversal and Assertiveness Training Skills



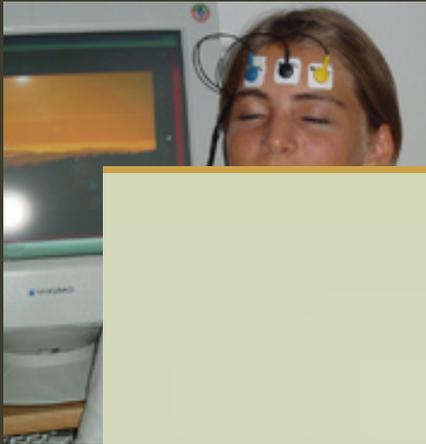
CLINICAL HYPNOSIS

- “Hypnosis is a state of awareness, often but not always associated with relaxation, during which the participant can give him- or herself suggestions for desired changes to which he or she is more likely to respond than when in the usual state of awareness. Spontaneous self-hypnosis may happen while reading, listening to music, watching television, jogging, dancing, playing a musical instrument, doing tai chi, doing yoga, or performing similar activities.”

CLINICAL HYPNOSIS

- Misconceptions:
 - Not a sleep-like state
 - Not under the ‘control’ of a therapist.
 - Non-directive
 - Not used for fun or public display

THE BIOFEEDBACK LOOP



Cortical
Inhibition
(chaos)

Cortical
Facilitation
(coherence)

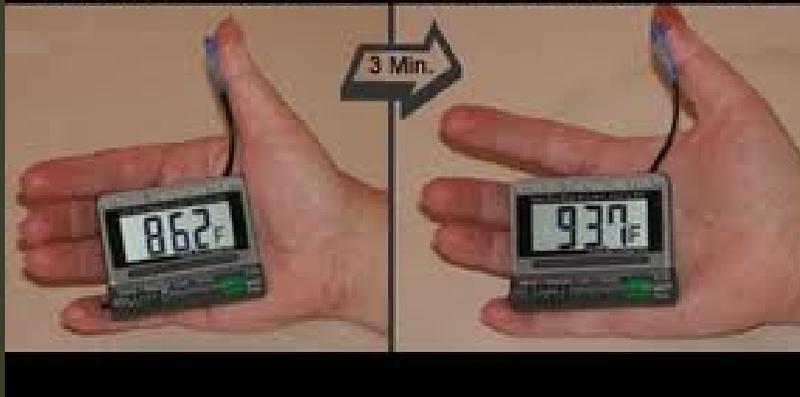


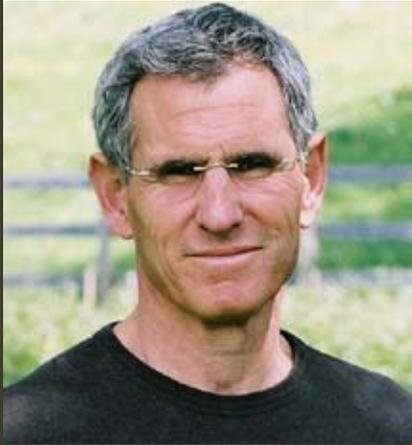
attempt to
change the process

BIOFEEDBACK:



Biofeedback Mind Training - Raising Your Temperature at Will





Jon Kabat-Zinn

Mindfulness refers to:

“the *awareness* that emerges through *paying attention* in a particular way, *on purpose*, in the *present moment*, and *without judgment*, to the unfolding of experience from moment to moment”

MEDITATION AND PAIN

- **Focused attention vs. Open monitoring**
- different styles of meditation may have different effects
- one altering the higher cognitive elaboration of nociceptive information
- the other promoting an non-evaluative stance on a fully experienced sensation.



ACUPUNCTURE:NIH CONSENSUS STATEMENT: 1997

“Acupuncture may be useful as an adjunct treatment or an acceptable alternative or be included in a comprehensive management program.”

- Myofascial pain
- Low back pain
- Headache
- Menstrual cramps
- Tennis elbow
- Fibromyalgia
- Carpal tunnel syndrome
- Addiction
- Asthma
- Osteoarthritis

Acupuncture for Pediatric Pain and Symptom Management

Anjana Kundu, MBBS, MD^{a,*}, Brian Berman, MD^b

- Hypothesized to work through neurohumoral mechanisms
 - Endorphins and other neurochemicals released locally and centrally by acupuncture
- Pain-relieving effects of acupuncture have been reversed by naloxone
- Evidence of clinical efficacy in practice in children is limited
- Referral depends on relative acceptance
 - Musculoskeletal pain, headaches, dysmenorrhea

ZEN CONNECT-THE-DOTS

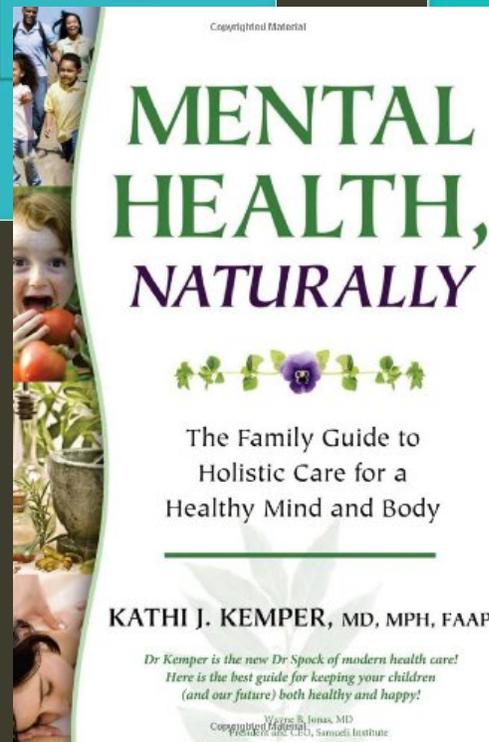
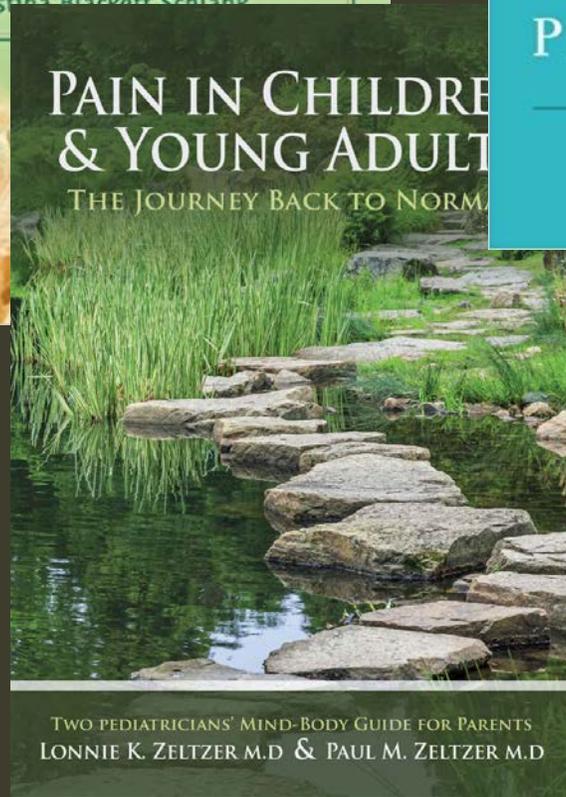
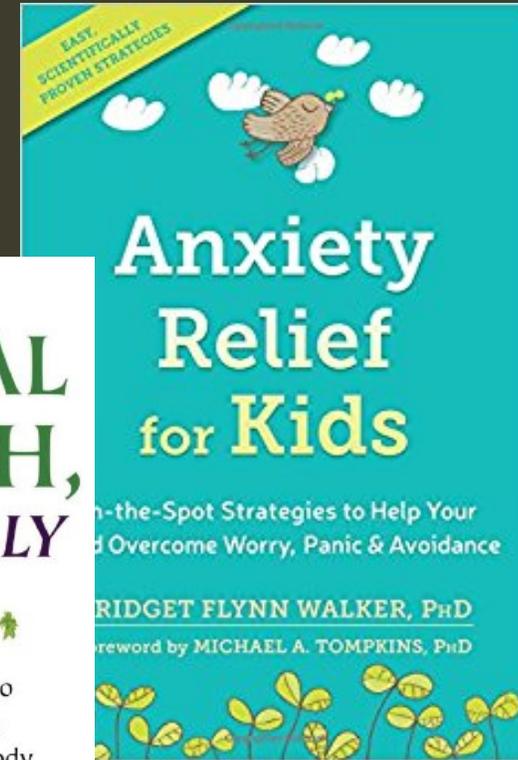
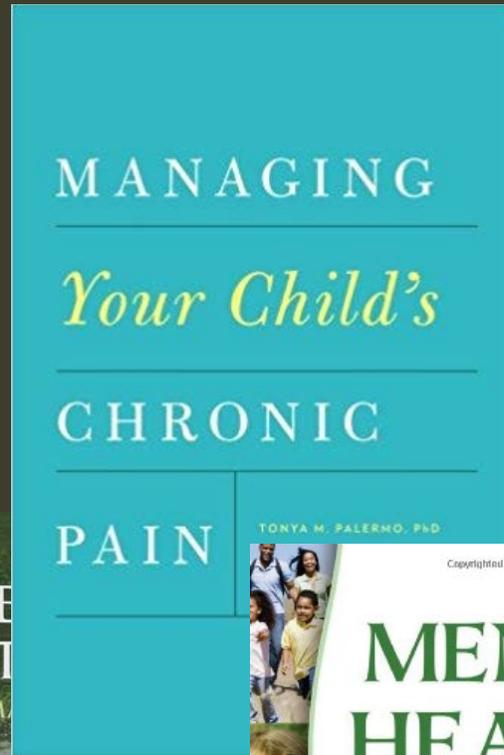
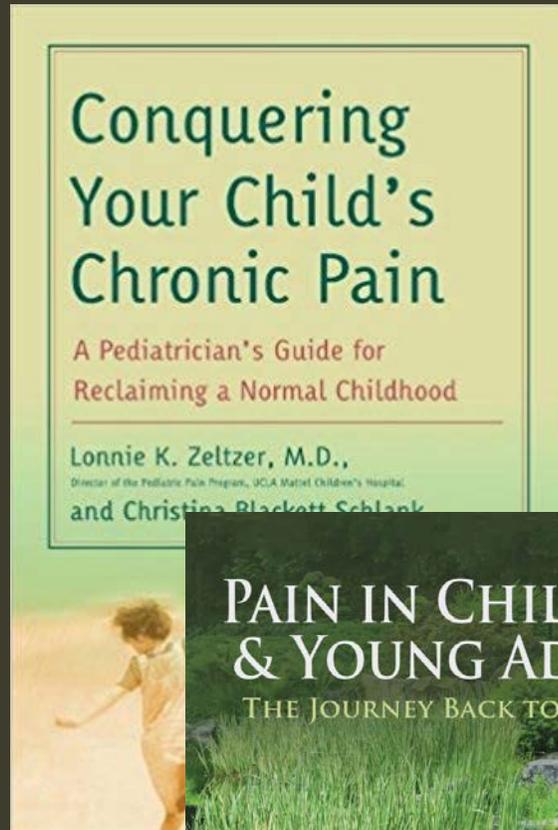


E SUBITZKY

“In protecting people from disappointment by not giving them ‘false hope,’ what we end up often doing is giving them false despair.”

Rachel Naomi Remen, MD

Indispensible Books



RESOURCES: MORE Books

Parenting:

- Stress-Proofing Your Child. Sheldon Lewis. 1996
- Parenting Your Stressed Child. Michelle Bailey, MD. 2011
- Helping Your Anxious Child: A Step-by-Step Guide for Parents. Ronald Rapee PhD and Ann Wignall D Psych. 2008
- The Everyday Parenting Toolkit (Kazdin Method). Alan Kazdin, PhD. 2013
- Transforming the Difficult Child: The Nurtured Heart Approach. Howard Glasser and Jennifer Easley. 2013, 4th ed.

RESOURCES: Books

Anxiety:

- Everybody Stay Calm: How to support your young child through medical tests and procedures. Angela Mackenzie, MD. 2014
- Freeing Your Child From Anxiety. Tamar Chansky, PhD. 2014
- Talking Back to OCD. John March, MD. 2007
- What to Do When Your Brain Gets Stuck: A kid's guide to overcoming OCD. Dawn Huebner, PhD. 2007