Psychological Perspectives on CRPS for Patients and Caregivers

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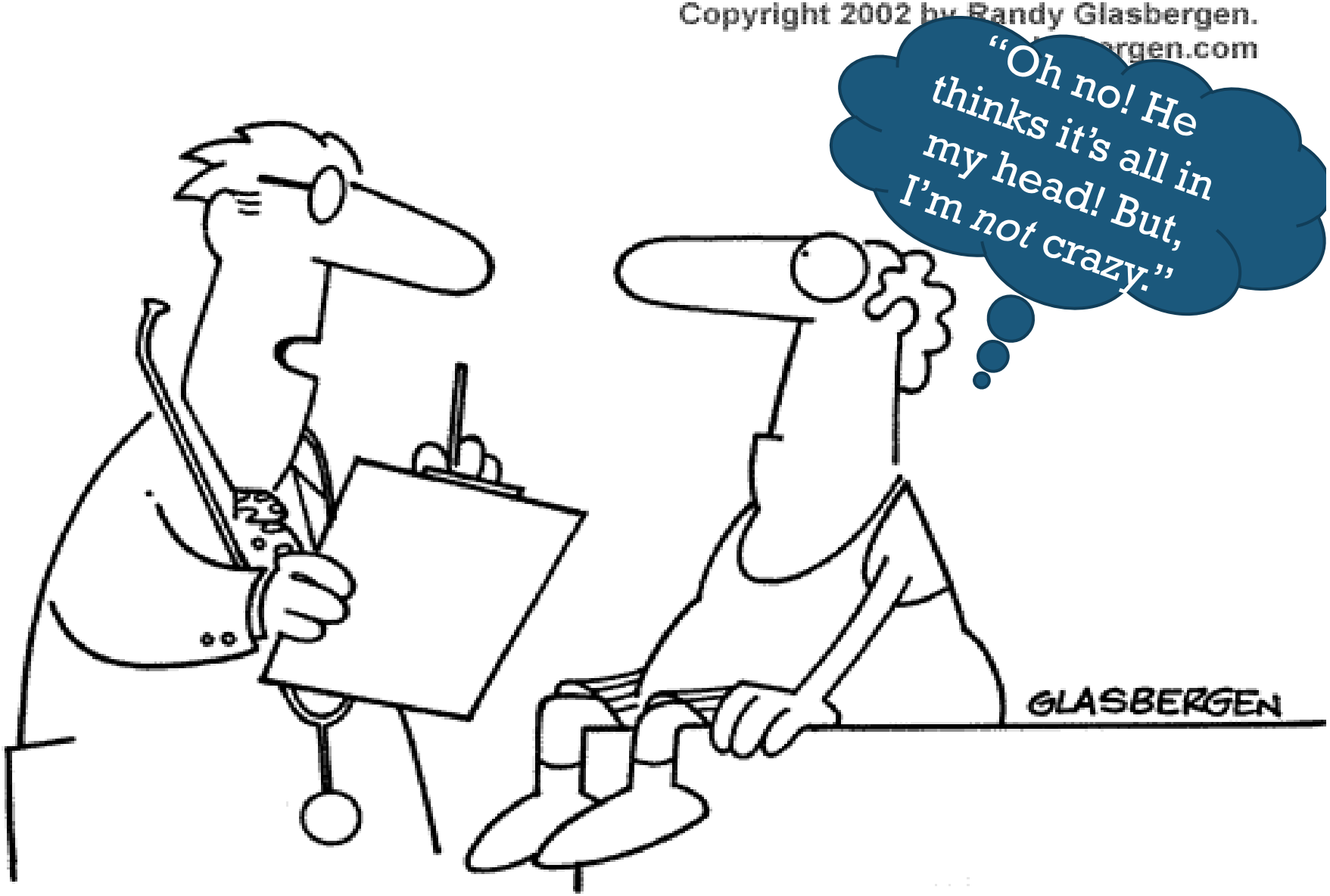


"We can't find anything wrong with you, so we're going to treat you for Symptom Deficit Disorder."

Ascending Transmission / Descending Modulation

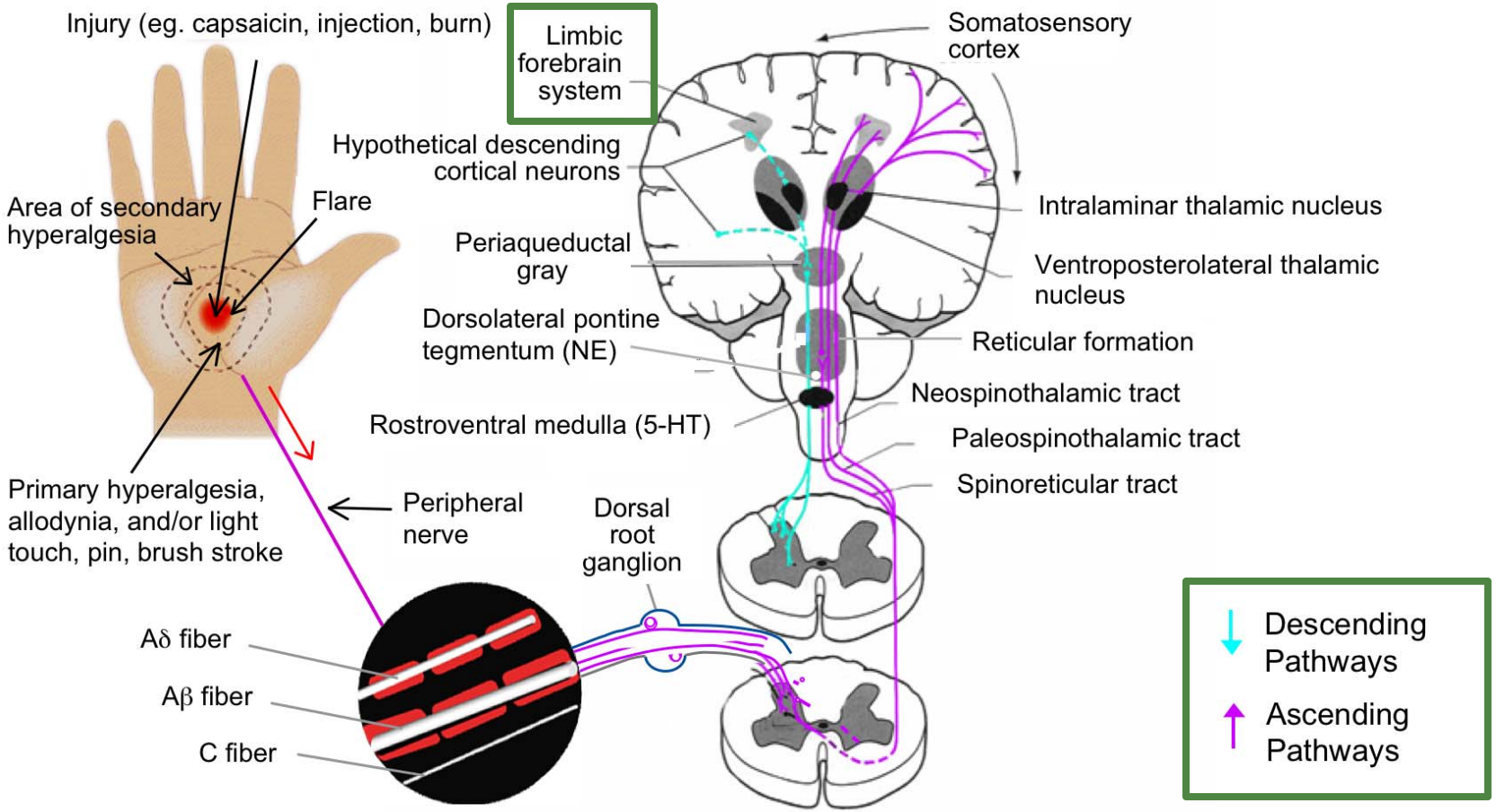
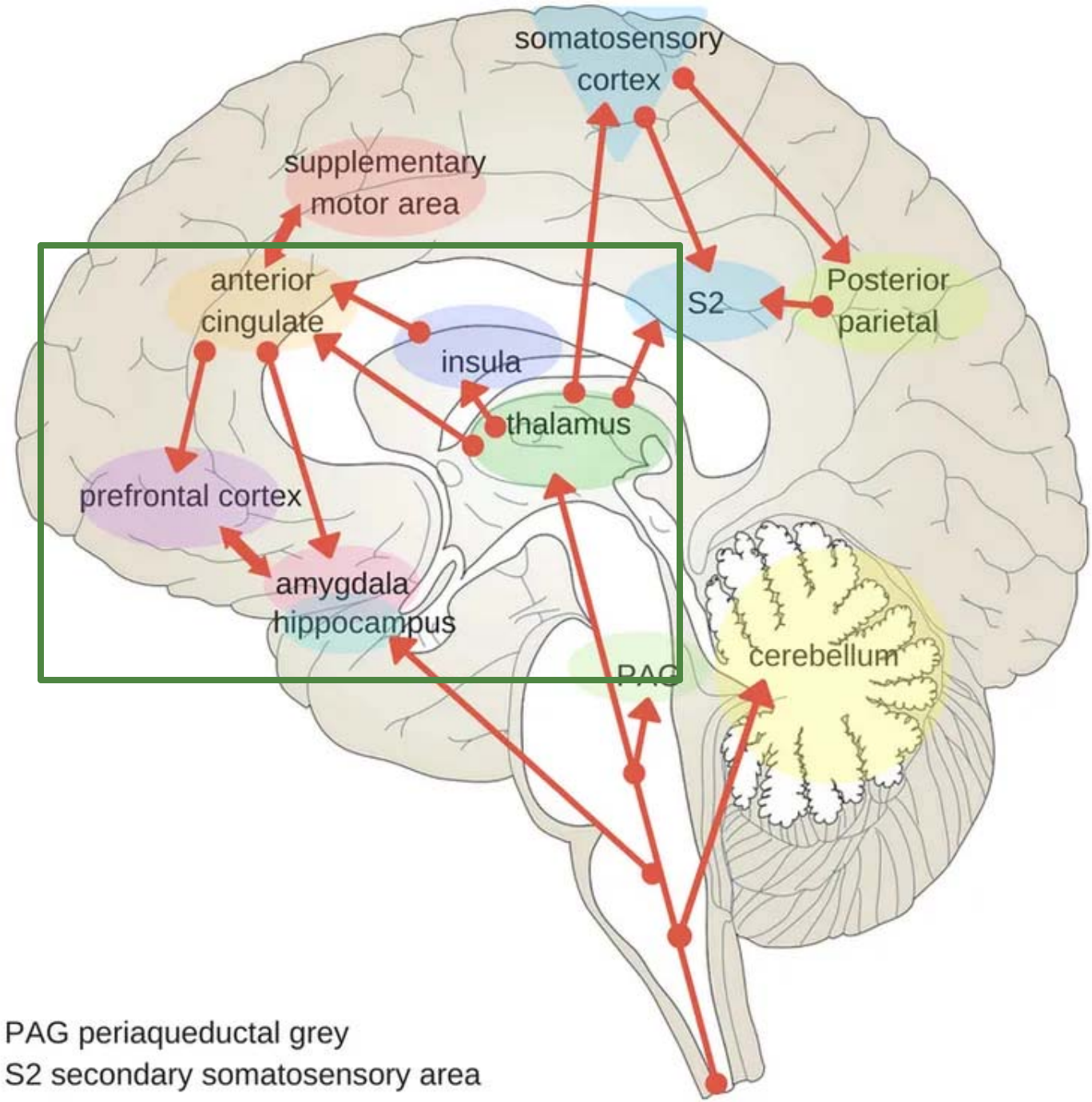
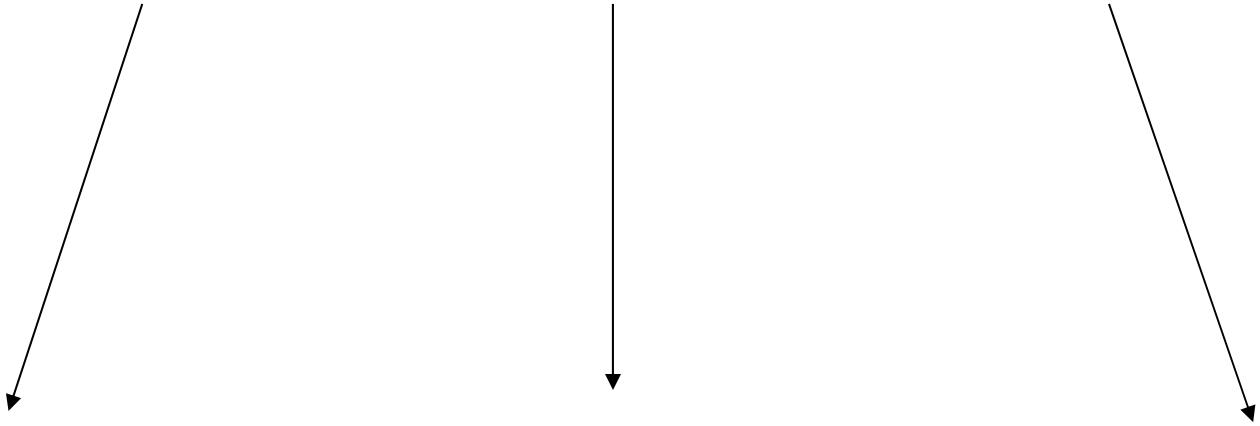


Figure adapted from: Alpay M. Pain patients. In: Stern TA, et al, eds. *Massachusetts General Hospital Handbook of General Hospital Psychiatry*; 2004:314.



PAG periaqueductal grey
S2 secondary somatosensory area

Bio-psycho-social



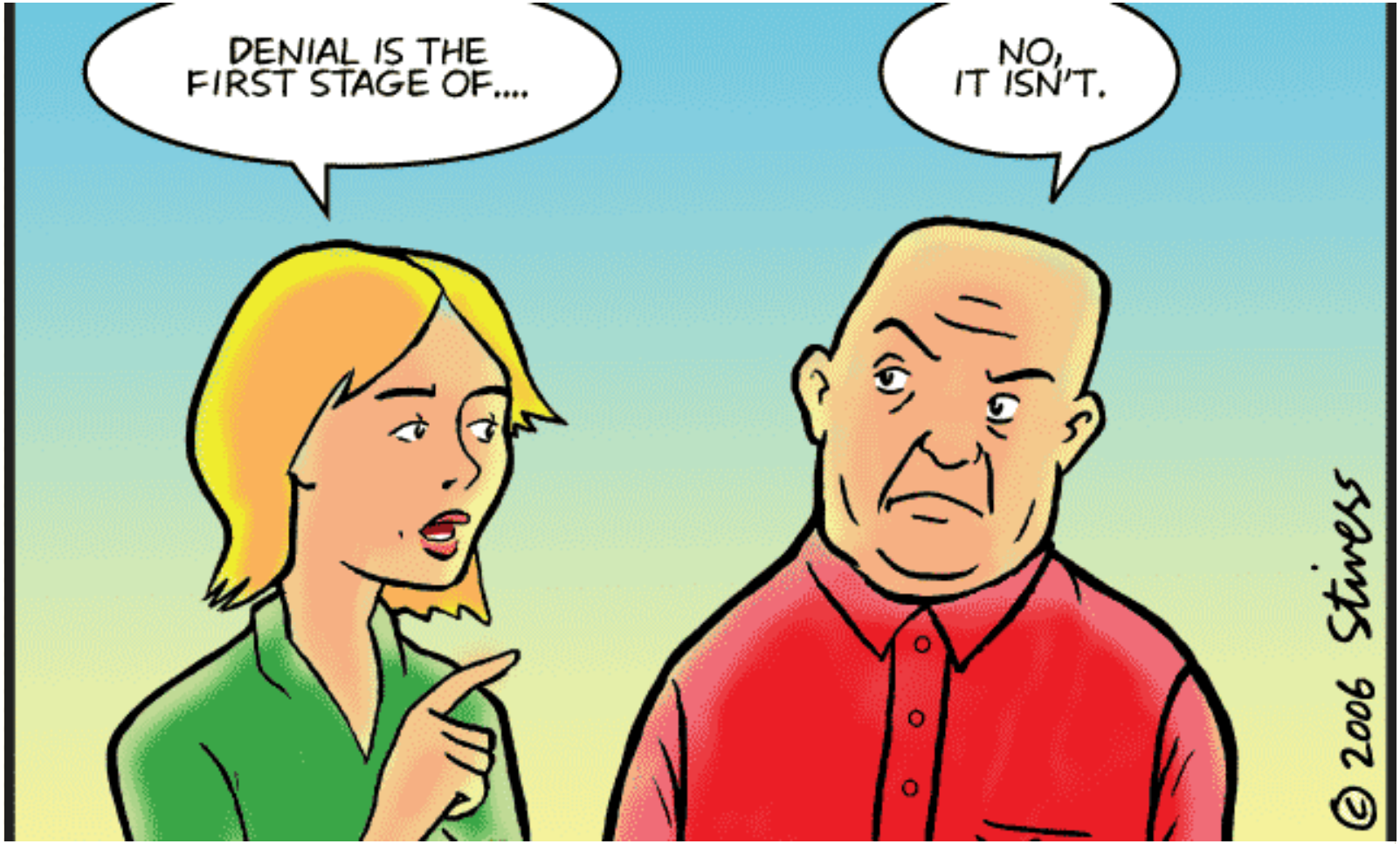
Tissue or Nerve Trauma, Physical Dysfunction, Physiological Reactions

Beliefs, Expectancies, Coping Methods, Emotions, Distress, Personality factors

Culture, Social Interactions, Environment

Knowing the "Person Behind the Pain"

- Hippocrates: *It's far more important to know what person has the disease than what disease the person has.*
- Sir William Osler: *Care more particularly for the individual patient than for the special features of the disease.*
- Dr. Francis Peabody: *The secret of the care of the patient is in caring for the patient.*



Depression and Grief

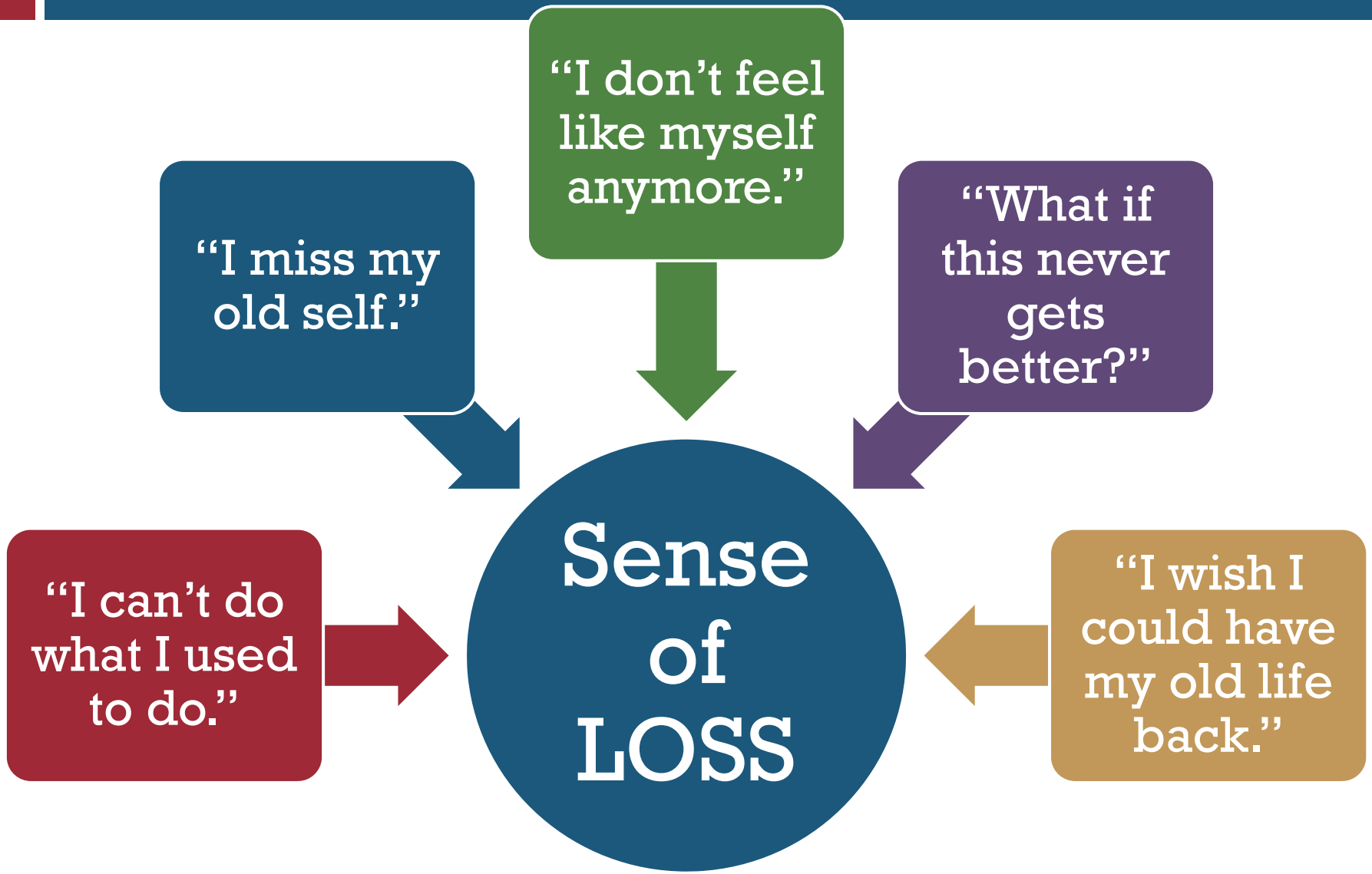
Depression and Pain

- Rate of major depression increases in a linear fashion with greater pain severity.
- Pain and depression together are associated with *greater disability* than either disorder alone.
  - The combination of CRPS pain, depression, high pain intensity and functional impairment is associated with increased risk of suicide.
- Depression (and anxiety or anger expression) may have a *greater impact on pain in patients with CRPS* than in those without, possibly due to the effects of distress on sympathetic nervous system arousal.

Assessing Depression

- **S** Sleep
- **I** Interest
- **G** Guilt
- **E** Energy
- **C** Concentration
- **A** Appetite
- **P** Psychomotor Changes
- **S** Suicidal Thoughts

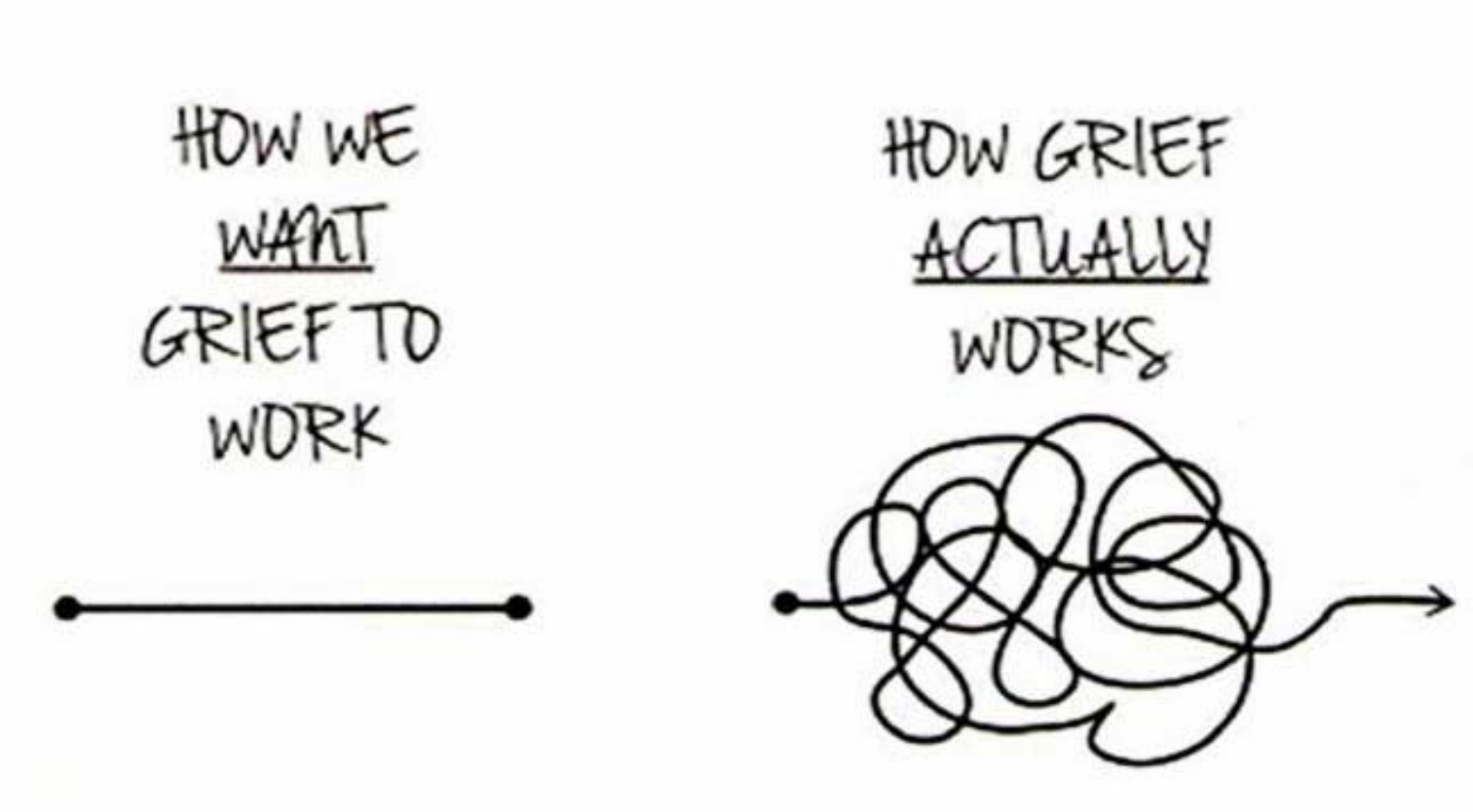
Sense of Loss – Do These Sound Familiar?



Pain-Related Losses

- Function
- Finances
- Comfort
- Stability
- Control
- Ability to plan/commit
- Productivity
- Libido/Intimacy
- Purpose/meaning
- Social Support
- Routine
- Positive/Pleasant experiences
- Vitality/Energy
- Faith (spiritual; safety of world)

Change/Loss ⟶ Grief Response



Anxiety

Anxiety: Primary or Secondary?

- Normal anxiety after pain
  - All pain patients have stressors, some more than others
  - Coping skills, genetics will determine our level of stress and stress-reactivity
  - There are some special pain-related anxiety conditions (e.g., "kinesiophobia")
  - Don't pathologize unless patient truly meets criteria

Anxiety: Primary or Secondary?

- Abnormal anxiety before pain = anxiety disorder
- Abnormal anxiety after pain = still an anxiety disorder
  - Panic Disorder
  - Generalized Anxiety Disorder
  - Specific phobias
  - Obsessive-compulsive disorder [OCD]
  - PTSD

Learned Disuse: Persistence vs. Avoidance

- Anticipatory anxiety about pain exacerbations
- Continued avoidance through immobilization of CRPS-affected limb:
  - Can increase expression of neuro-inflammatory mediators
  - Strengthens the fear (e.g., "memory nets" in adult rats)
- Treatment should be "functionally focused"
  - PT/OT
  - Exposure and relaxation to calm anxiety

"YOU ALWAYS MISS 100% OF THE SHOTS YOU DON'T TAKE"

-Wayne Gretzky

Evaluating Anxiety

- Try to pinpoint what's making you anxious:
  - Patients: Setting goals? Moving the limb? Family stress? Communicating with health care providers?
  - Caregivers: Finances? How to help your loved one? What if I say the "wrong thing?"
- Are you worrying with thoughts? Images?
- Can you notice early physical symptoms?
  - Tension
  - Pain increase
  - Stomach- or Headaches

For Clinicians: In-office Mood Questionnaires

Depression

- BDI-II (Beck Depression Inventory
- CES-D (Center for Epidemiological Studies – Depression)
- PHQ – 9 or 2
  - Depressed, sad, hopeless
  - Loss of pleasure
- CSQ or PCS (for "Catastrophizing")

Anxiety

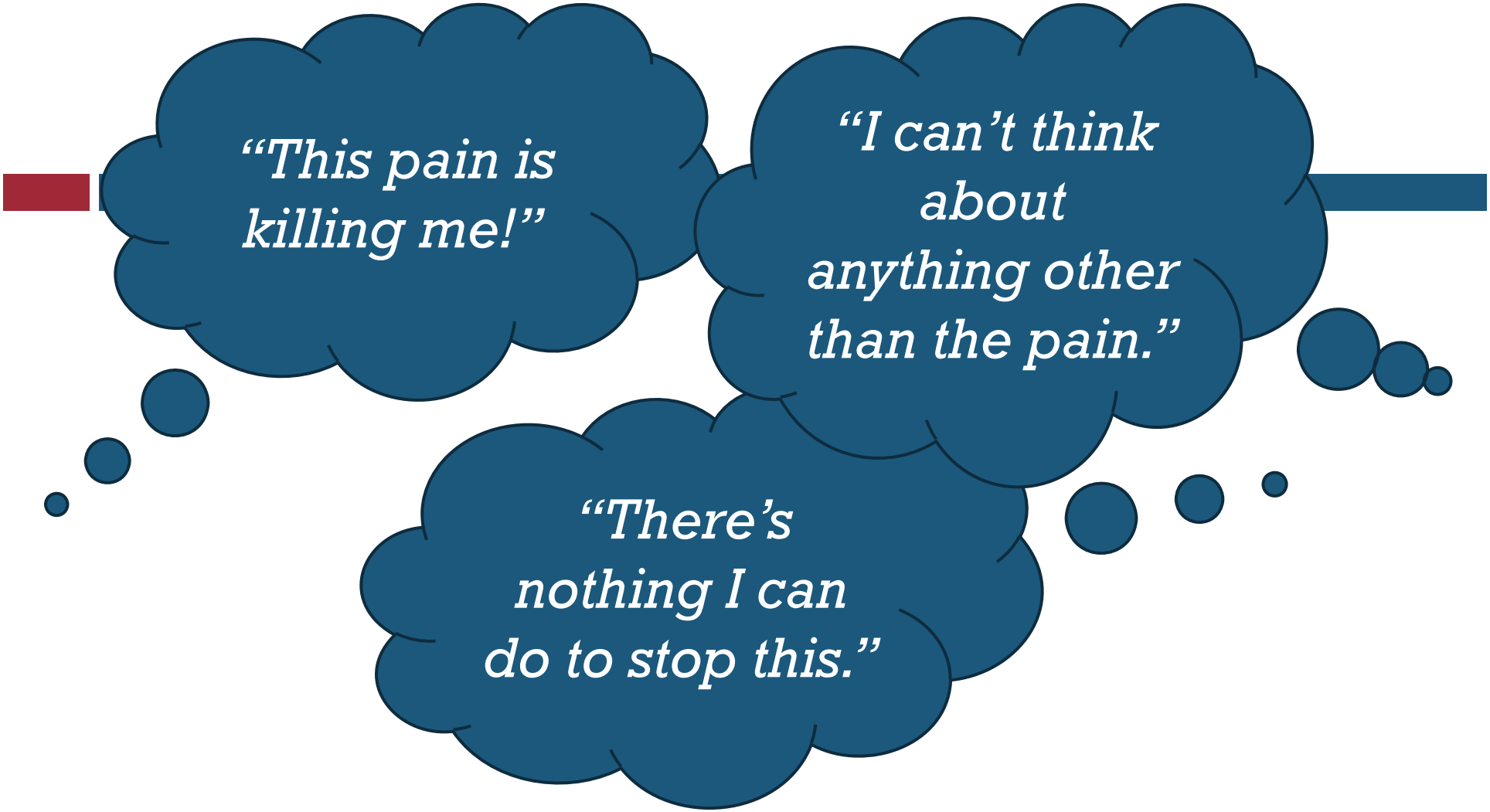
- STAI (State-Trait Anxiety Inventory)
- GAD-7 (Generalized Anxiety Disorder)
- PASS (Pain Anxiety Symptoms Scale)
- TKS (Tampa Kinesiophobia Scale)

Anger

Anger

- Anger associated with pain-related disability, increase in pain intensity, poor sleep, interpersonal consequences
- It's not just about the anger, but rather the regulation/ expression of the emotion:
  - Suppressive style ("Anger-In") vs. Expressive ("Anger-Out")
- Proposed mechanisms (excellent reviews by Breuhl et al., 2006 and Trost et al., 2012):
  - Goal frustration
  - Perceived injustice
  - Symptom specific muscle reactivity
  - Deficiency in endogenous opioid blockade mechanisms

Catastrophizing



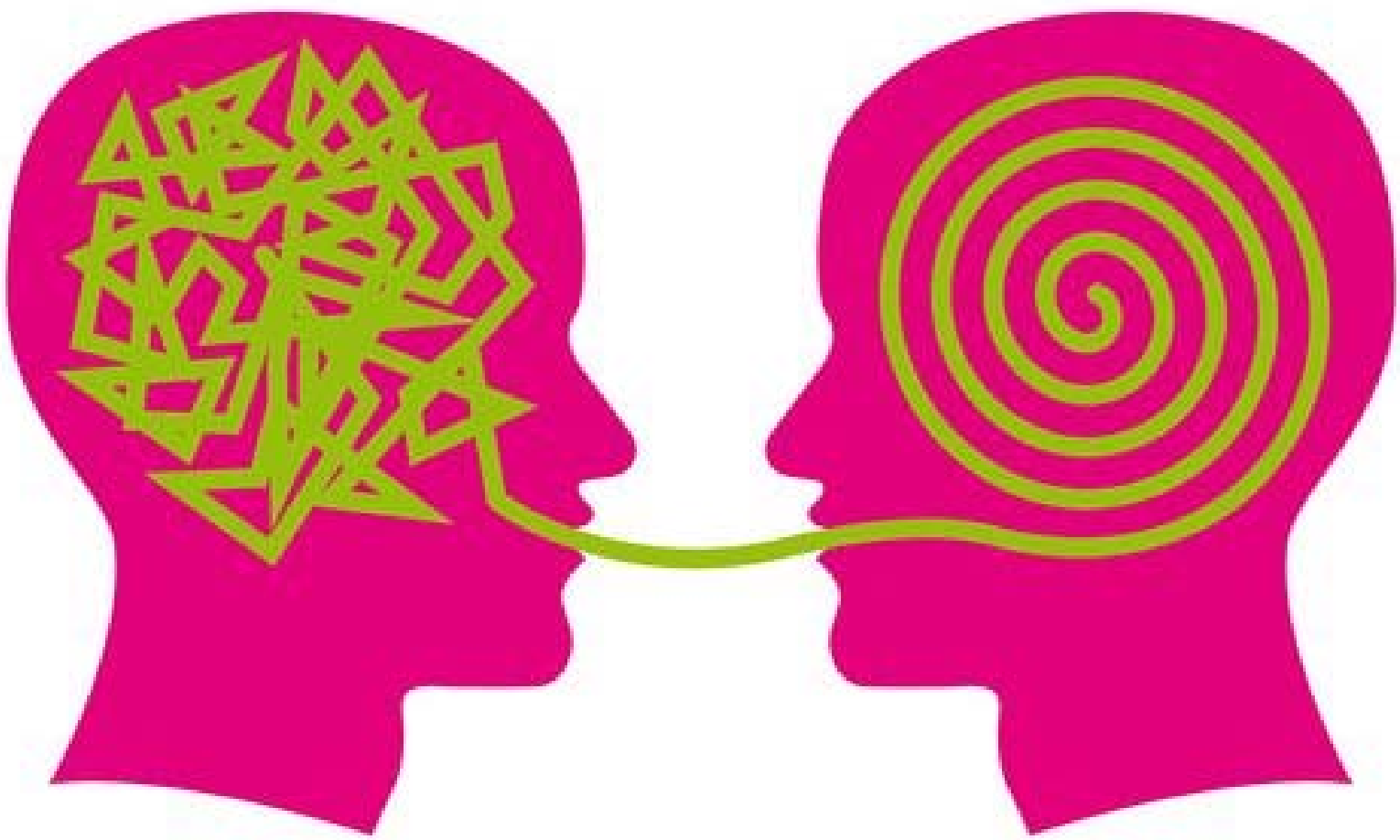
Pain Catastrophizing:

Magnification, Rumination, Helplessness

Catastrophizing

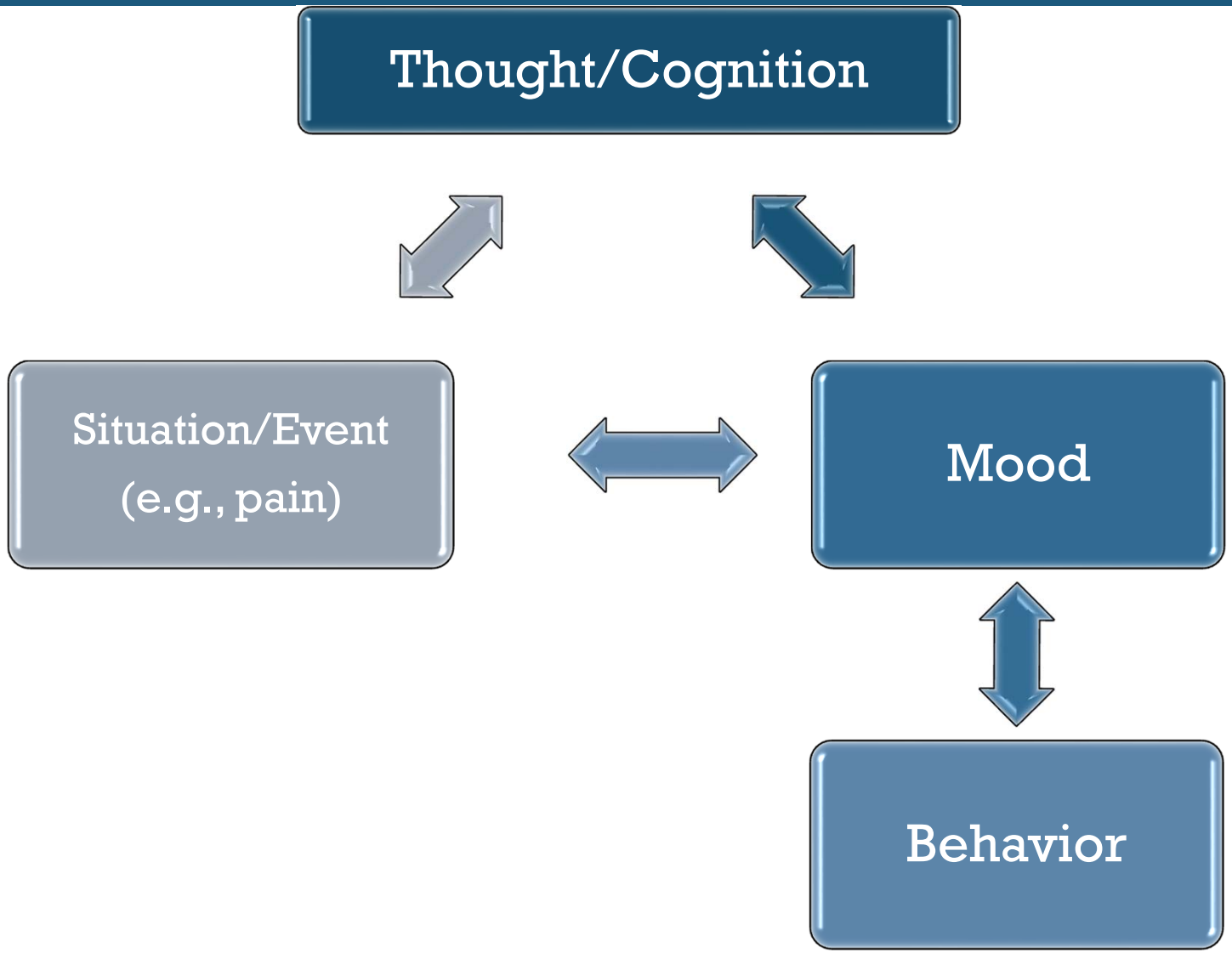
- Strong relationships between catastrophizing and:
  - Functioning: Pain intensity, disability and distress; Quality of life
  - Mood: Depression
  - Behaviors: Overt behaviors and spousal responses
  - Brain processing: amplified activity in insula and ACC, reduced activation in pain-inhibitory systems
  - Inflammatory responses: c-reactive protein, interleukin-6

- Treatment: "De-catastrophize"



Cognitive Therapy

Just what is CBT?



Components of Cognitive-Behavioral Therapy (CBT) for Pain Management

- Education/Motivational Enhancement
- Goal Setting (Realistic Expectations)
- Relaxation/Imagery
- Hypnosis/Distraction
- Biofeedback
- Correcting Cognitive Errors
- Graded Activity Exposure (Behavioral Activation)
- Activity-Rest Cycling (Pacing)
- Time-Contingent Medication Use
- Relapse Prevention
- Couples/Family Communication Therapy
- ACT (acceptance)
- Treat Co-morbid Conditions (sleep, weight, smoking)

Examples of "Distorted" Negative Thinking

Distortion Label	Pain-Related Example
All-or-Nothing, Polarized Thinking	"If I can't dig in my garden like I used to, I won't get outside at all."
Mind-Reading	"Everyone thinks I'm lazy because I'm using a scooter at the grocery store."
Destructive Labeling	"I'm disabled." "I'm a loser."
Confusing Inability with Unwillingness	"I can't go to church because of my back." vs. "I'm reluctant to sit through service because I think my back pain will increase."
Imperative Thinking (Shoulds and Musts)	"I should be able to walk through a store like I used to."
Emotional Reasoning	"My body feels useless, therefore I am useless."
Minimization/ Discounting the Positive	"He probably only held the door open for my because I look so pitiful."
Overgeneralizing	"I had to leave the baseball game early today because of the pain….I'll never be able to enjoy anything ever again!"

Cognitive "Restructuring"

- Is there any other way I could look at this?
- What are the advantages and disadvantages of thinking this way?
- Is my logic correct? Would it hold up in a "court of law"?
- What would I tell a friend in this situation?
- What would a respected role model do in this situation?

Other Cognitive Techniques

- Examining core beliefs (when ready)
  - Helplessness, unlovability, pain as a punishment
- Word substitution:
  - Replace shoulds with "I'd like to" –
    - Don't "should on yourself!" 
  - Replace "I can't" with "I could if…"
- "Silver Lining of Pain" – What have you gained?
  - Empathy, learned who friends are, patience, insight into personal strength, stronger faith


Acceptance
The magazine of giving up on illusions
YOU'RE NEVER GOING TO LOSE THOSE TEN POUNDS
p.21
YOU SUCK AT YOUR JOB
p.30
YOUR SISTER IS SMARTER THAN YOU
p.45
YOU'RE OLD
p.47

Acceptance

"You'll just have to learn to live with it."

- Patients interpret this statement initially in a negative way
  - "Just give up."
  - "Your situation is hopeless."
  - "Quit being a baby."
  - "This is as good as it gets."
  - "You're not doing a good job."

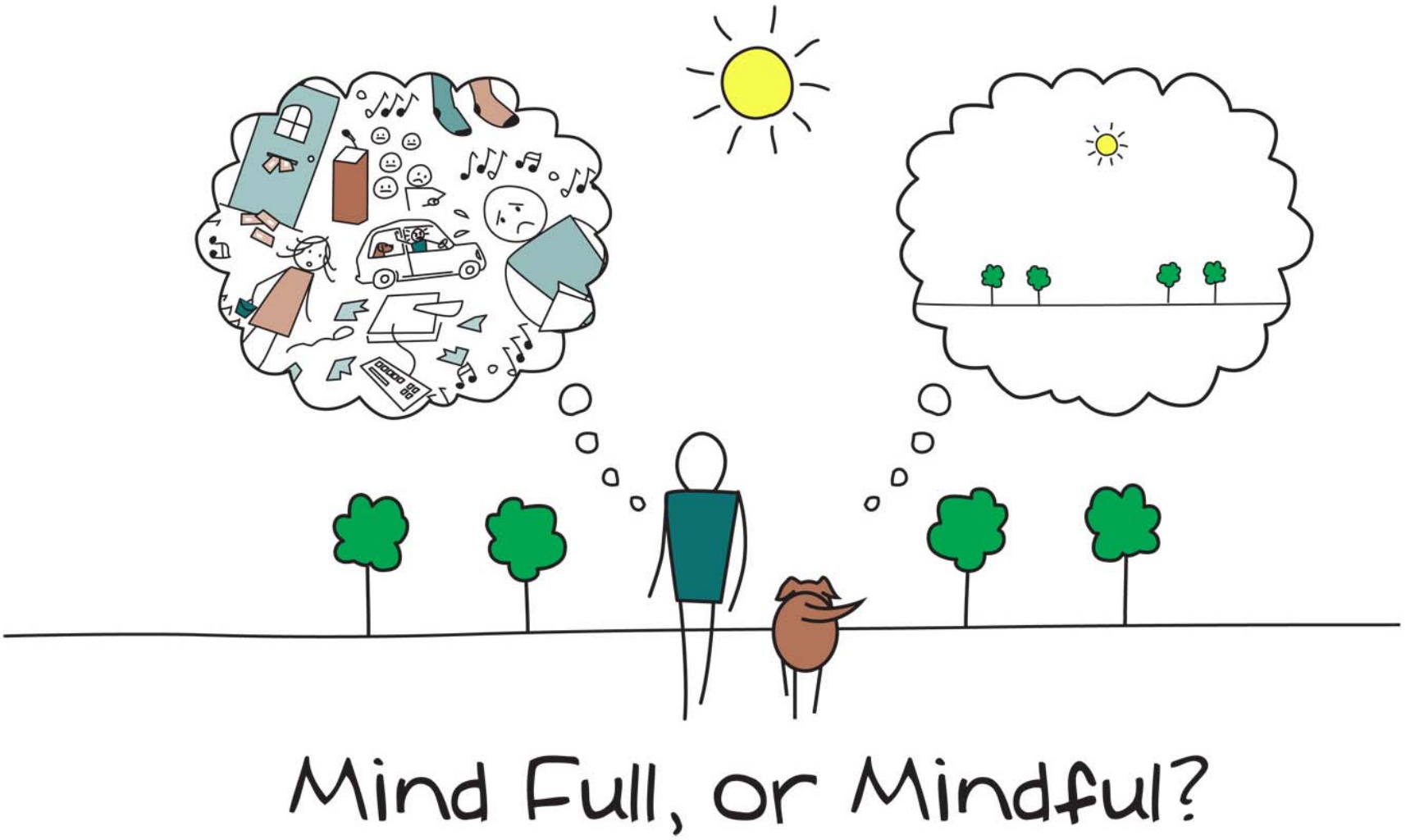
(Easier said than done!)

Chronic Pain Acceptance

- Pain acceptance is related to:
  - Less attention to pain, more engagement with daily activities, higher motivation and better efficacy to perform daily activities
  - Less medication consumption, better work status
  - Higher levels of positive affect
  - General QOL, independence

$$\text{Pain} = \frac{\text{Suffering}}{\text{Intensity}}$$

Working Toward Acceptance



Summary: Overlap Between Pain and Mood

- Patients with CRPS/RSD are not psychologically different from other patients with chronic pain
  - Psychological factors alone do not *cause* the physical symptoms.
- *Comorbid* psychiatric disorders are common, however: 24-49% of patients in various studies
- Mood may be "predispositional," but can also be a reaction to onset of CRPS…AND part of the pain experience itself!
- *Multidisciplinary* treatments are recommended.

Wait…How Does This Stuff Work?

Mechanisms of Action for Mind-Body Interventions

- Changing overt behavior & covert cognitive behavior
- "Belief becomes biology" (Cousins, 1998)
  - Releasing endogenous opioids
  - Rebalancing neurotransmitters (e.g. 5-HT, NE, CCK)
  - Physiological control (e.g. autonomic, descending modulation, musculoskeletal)
  - Neurohormonal changes (endocrine, immune system)
  - Cortical functioning

Topicals

Distraction Tools

Gentle Exercise Video

Devices:
- TENS
- Heating Pad?

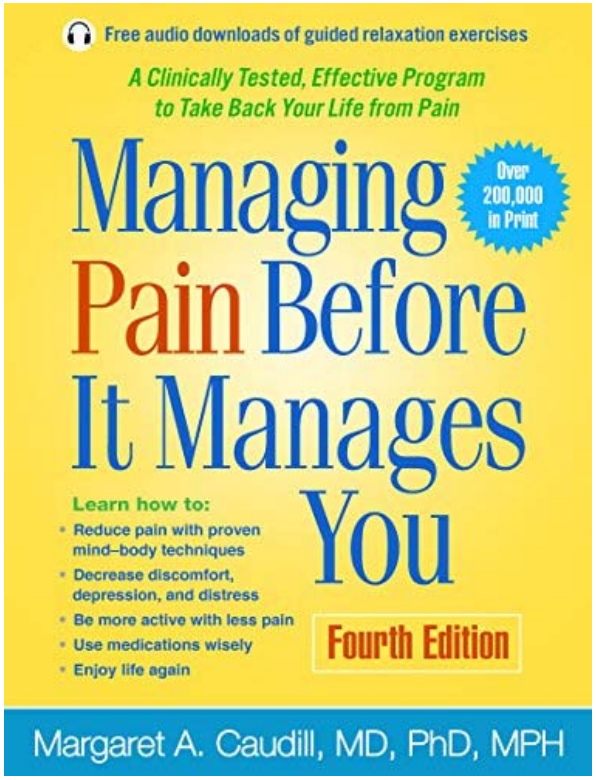
Humor Boosters

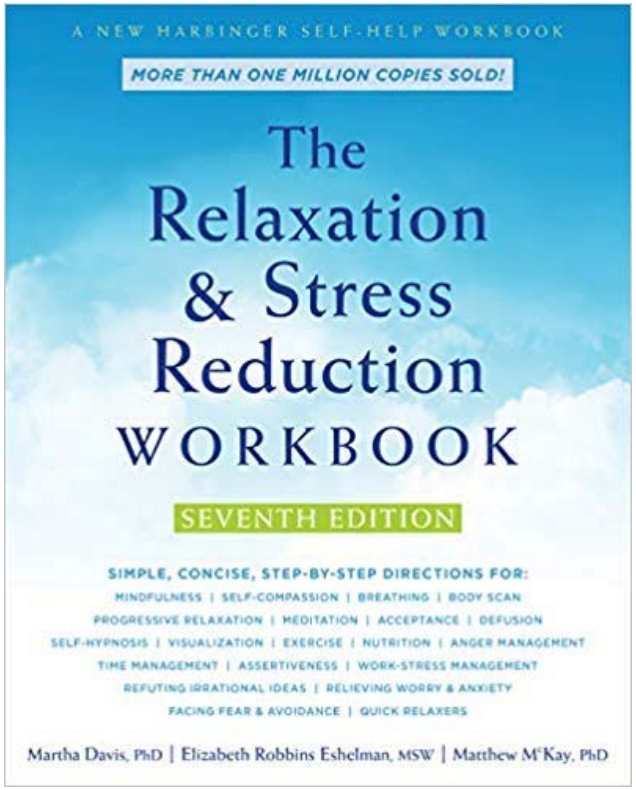
RSDSA Support Info

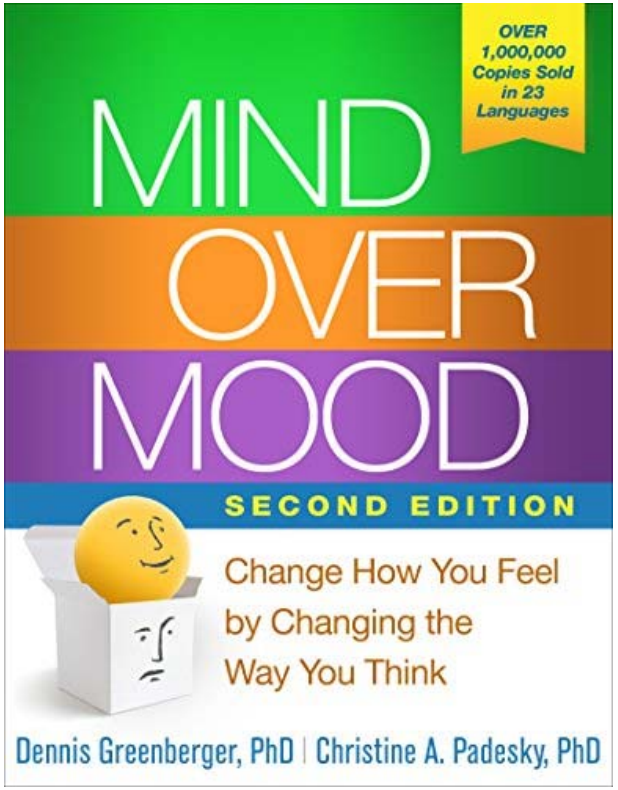
Cues to be mindful

Create a Pain Self-Management ToolKit

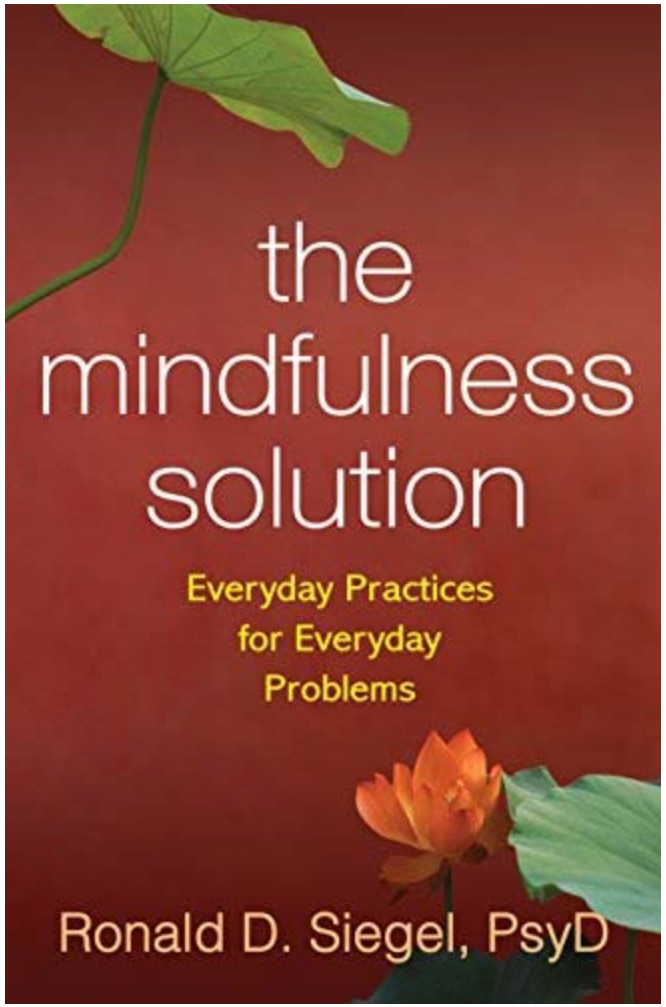
Helpful Resources for Further Psychological Support: Patients

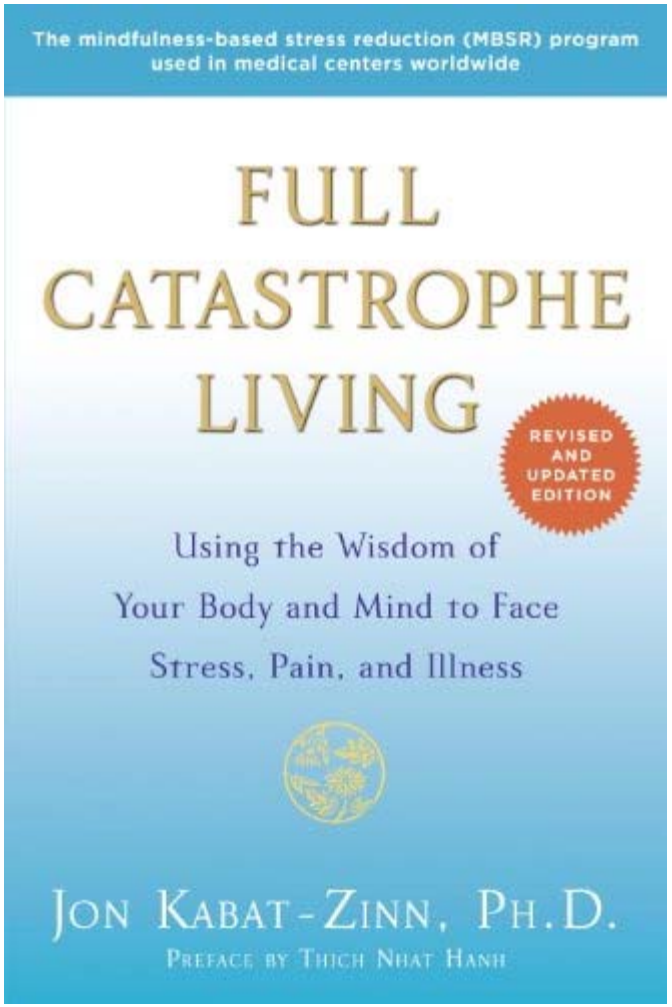




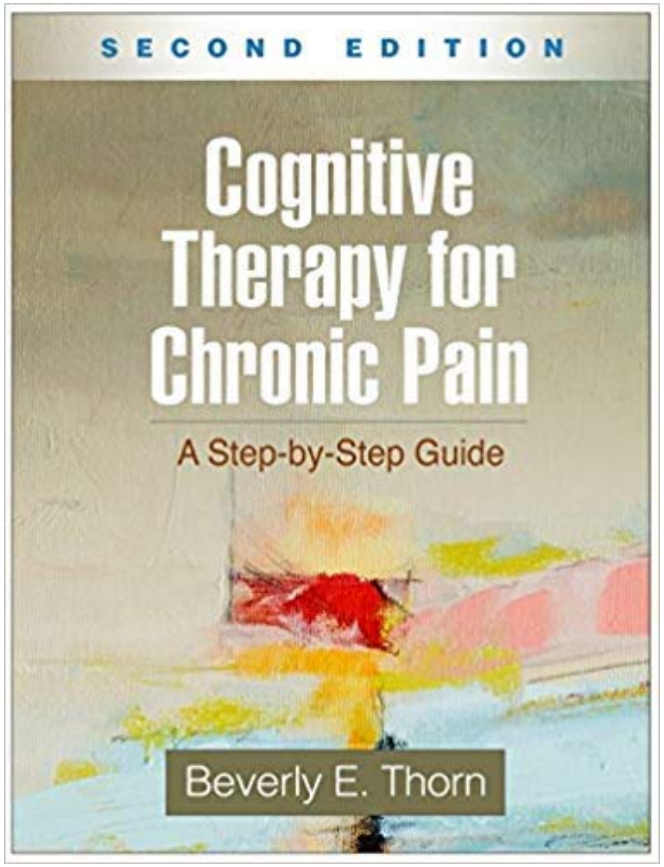


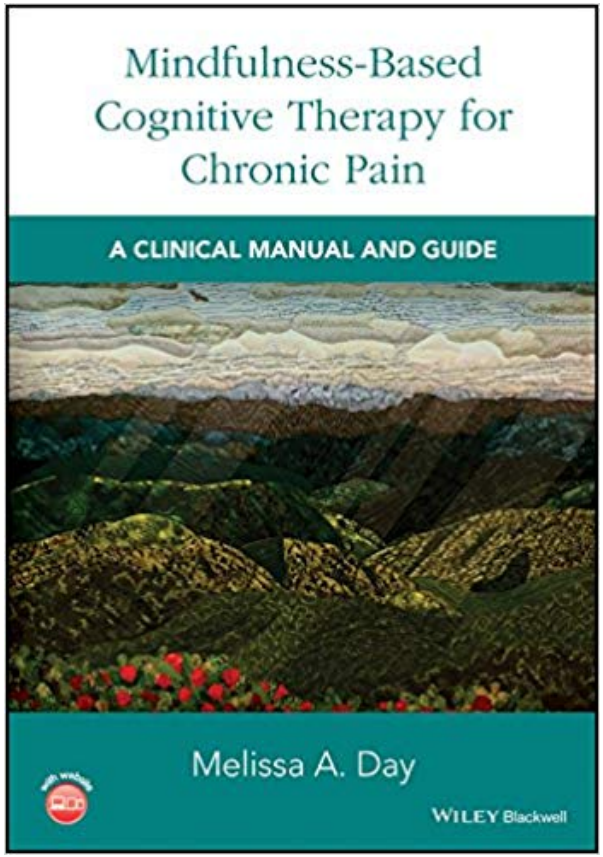
Helpful Resources for Further Psychological Support: Patients (cont.)

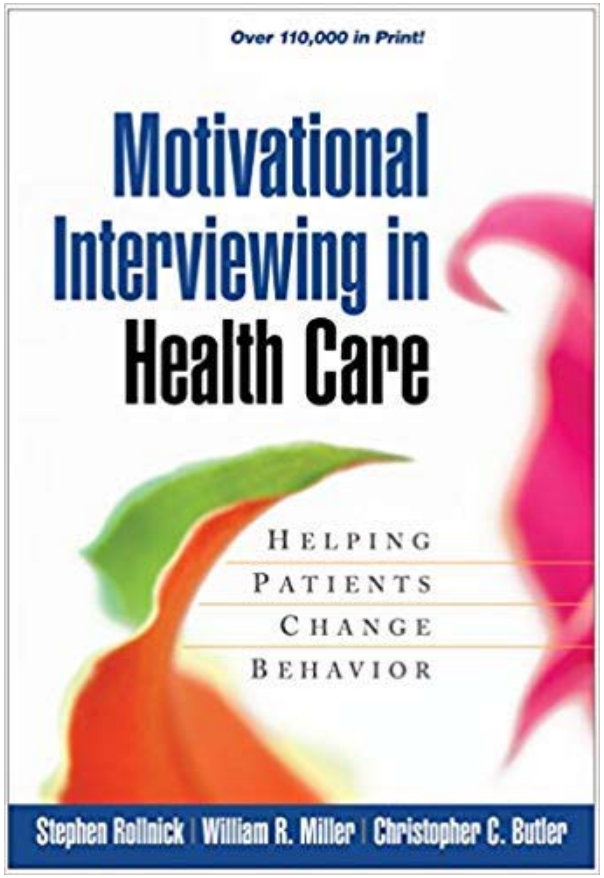




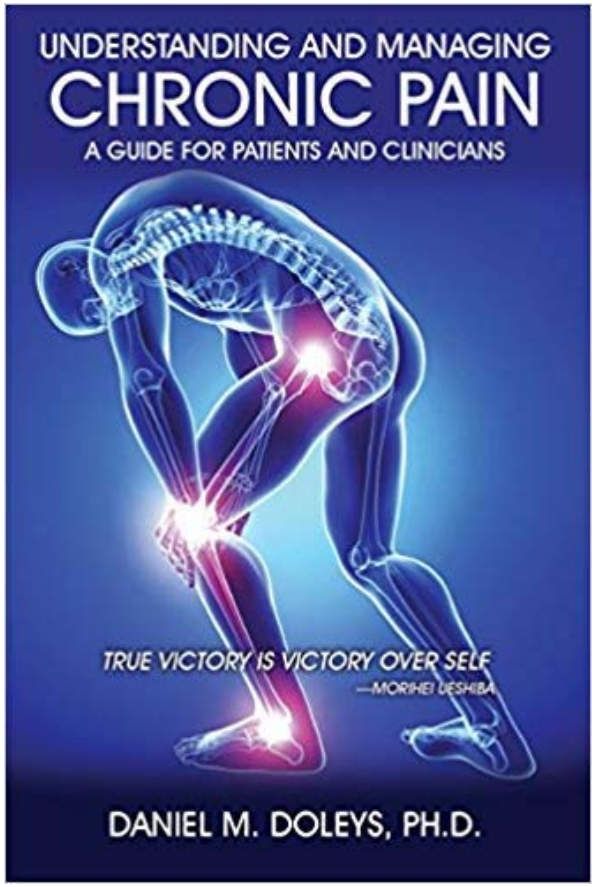
Helpful Resources for Further Psychological Support: Clinicians

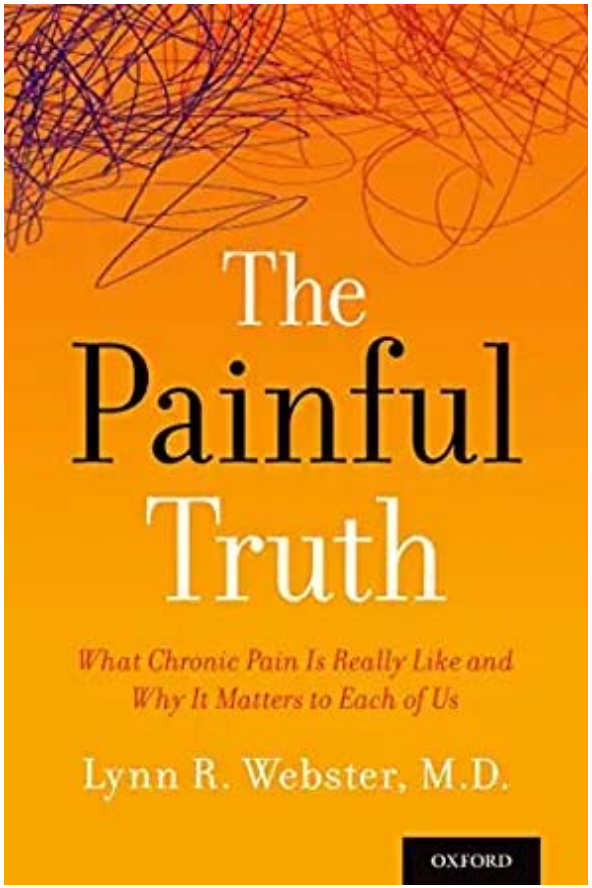


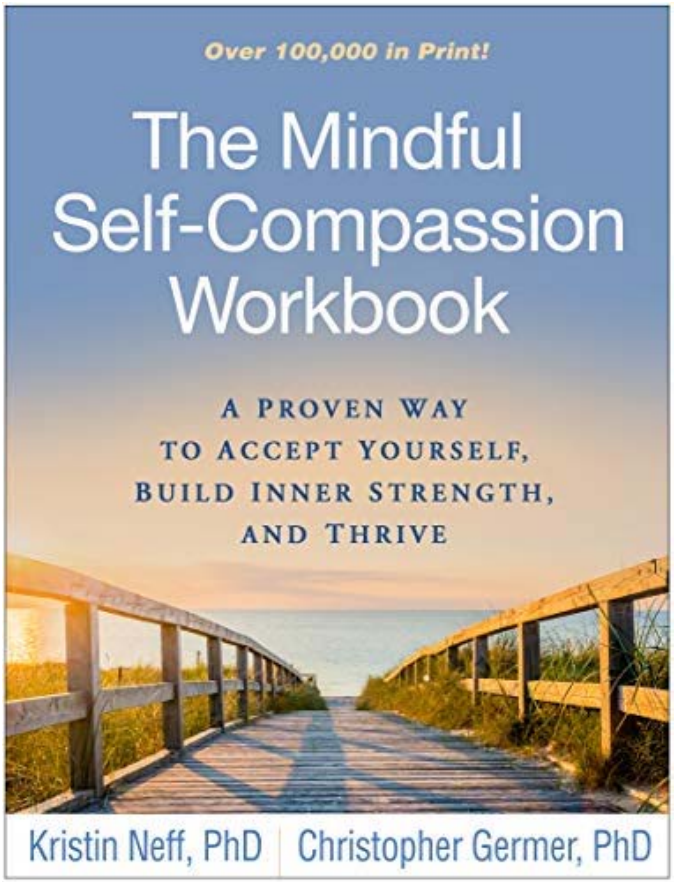




Helpful Resources for Further Psychological Support: Caregivers







Try a "Loving Kindness Meditation": http://www.mindfulness-solution.com/DownloadMeditations.html

Helpful Resources for Further Psychological Support: All

HEADSPACE®

KARDIA breathing pacer

HeartMath.org

Biofeedback:

- EmWave 2 Personal Stress Reliever
- Inner Balance

Palouse Mindfulness

Mindfulness-Based Stress Reduction

https://palousemindfulness.com/

Any Questions?

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