Integrative Pain and Symptom Management

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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”

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
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

Computer processes

and presents back
Attend to and
attempt to
change the process

Sensory information
from patient

change the process
BIOFEEDBACK:
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”

Jon Kabat-Zinn
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
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
"You gotta be kidding! Your back still hurts?!

Actually, we're an alternative ambulance..."
ZEN CONNECT-THE-DOTS
“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

- Conquering Your Child’s Chronic Pain
- Managing Your Child’s Chronic Pain
- Pain in Children & Young Adults: The Journey Back to Normal
- Mental Health, Naturally
- Anxiety Relief for Kids
RESOURCES: MORE Books

Parenting:
• Stress-Proofing Your Child. Sheldon Lewis. 1996
• Parenting Your Stressed Child. Michelle Bailey, MD. 2011
• The Everyday Parenting Toolkit (Kazdin Method). Alan Kazdin, PhD. 2013
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