The Psychosocial Model of Pain and Non-Pharmacological Treatments

Dr. Gerhart has no conflicts to report.

Acknowledgements

- Michigan Health Endowment Fund
- Coleman Palliative Medicine Training Program
- University of Chicago, Center for Continuing Medical Education
- Aliza Baron, AM
- Ashley Eaton England, MA
- Stacie Levine, MD
- Sean O'Mahony, MB, BCh, BAO, MS
- John W. Burns, PhD
- Michael Hoerger, PhD, MSOR, MBA
- Katherine Ramos, PhD
- Laura S. Porter, PhD
- Brenna Mosman, MA, MS
- Sarah Alonzi, BS
- Tristan Peyser, MS
- Seowoo Kim, BS

Rationale

- Pain is very common in cancer, and often increases as disease progresses
- Cancer risks may also pose risks for other painful conditions
- Medications are crucial but do not treat total pain or all its causes
- Today, we know more than ever, but pain in serious illness often remains:
  - common
  - undetected
  - misunderstood
  - undertreated
- This is an introduction or basic review of some non-pharmacological factors in pain during a serious illness
Objectives

1. Identify psychosocial factors that can exacerbate pain
2. Consider strategies for assessing psychosocial responses to pain
3. Analyze the impacts of non-pharmacological treatments on pain and pain-related function

Think about a time you felt pain.

Now Think About Cathy

Cathy is a 50-year-old Black woman recently treated for colon cancer. She has a lengthy history of low back and side pain that started when she worked in an assisted living facility and fell while assisting a patient. Lately, she worries that her pain is a sign her cancer has spread. Sometimes she blames herself for not seeing her doctor sooner.

Pain is real

- But hard to label, describe, and measure for patients and providers
- Pain is a process shaped by the nervous system
  - Peripheral and Central
  - External events
  - Past experiences
- Tissue Damage – Not Necessary or Sufficient for Pain
- 25% to 50% of primary care visits involve medically unexplained symptoms
- Ever injured during an "adrenaline rush" and not notice?

Pain is a private experience, but its real.

Even to B.F. Skinner, the founder of Radical Behaviorism:

_Just as physical as a typewriter_


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**Pain on multiple fronts**

- Unpublished data from the EMPOWER Trial (N = 633 patients w/ various cancer histories)
  - >60% with physical comorbidity
  - >25% with Arthritis
  - >20% with Chronic Back Pain
  - >10% with Diabetes
  - >3% with Angina
  - >30% with psychiatric diagnosis

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**Characterizing Pain**

- **Type** (e.g., somatic, visceral, neural)
- **Intensity**
- **Duration**
- **Localized versus Diffuse**
- **Cognitive**
- **Functional Impact**
- **Emotional Consequences**

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### Pain on multiple fronts

- Comorbidity is understudied in cancer
- <1% to 90% of patients depending on the sample and methods
- Adds complexity to detection and diagnosis
  - More frequent visits could facilitate detection or serve as a distraction
- May deter curative treatments
  - RCTs tend to be designed around single diagnoses
- Poorer overall rates of survival


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https://basicmedicalkey.com/assessment-tools/
Pain Networks

- Pain is a network of experiences and responses
- Behavior
- Cognition
- Attention
- Appraisal
- Memory
- Emotion
  - Frustration, Fear, Anger
- Awareness
- Expression
- Relationships
- Spirituality

Assessing Psychosocial Processes

- Brief Pain Intensity and Localization
  - Edmonton Symptom Assessment Scale (ESAS; Chang, Hwang, & Feuerman, 2000)
- Pain related thinking
  - Pain Catastrophizing Scale (PCS; Sullivan, Bishop, & Pivik, 1995)
- Pain interference
  - PROMIS Pain Interference Short-Forms (Chen et al., 2019)

In the clinical conversation

- Think Functional Contextualism
  - What is the function of this expression of this pain, in this setting?
- “Tell me more about your pain ...”, “How is your pain affecting you?”
  - Could reveal insights about
    - Disease status
    - Activity
    - Sleep
    - Fatigue
    - Fear, Sadness, and Frustration
    - Isolation and role changes
    - Spiritual struggle
- “What other types of pain have you dealt with?”

Nonverbals in the clinical conversation

- “It’s fine. I’m good, doc.”
- “Your pain scale needs to go up to 23!”
- What pain behaviors and nonverbals provide you with clues about pain?
Some Non-pharmacological Treatment Strategies

Psychosocial Treatments for Pain

- Significant but modest impacts on conditions cancer-related pain, chronic low back pain
- Many tools available
  - Cognitive Behavioral Therapies
  - Education
  - Exercise
  - Hypnosis
- Consider our Top 10 Tips for Pain Management, and see the attached references.

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Tip 1: Use a biopsychosocial framework
- Inquire with patients about how they are doing emotionally, cognitively, spiritually and in their relationships
- Assess their pain, and their relationship with it

Tip 2: Promote Healthy Pacing
- Overcome avoidance
- Avoid Boom and Bust Cycles
- Balance rest and activity
  - (e.g., walk 10 minutes, rest 15 on park bench)
- Rest before pain is exacerbated
Tip 3: Consider stretching

- Stretching, Yoga
- Consult with Occupational, Physical Therapy, other rehabilitation specialists regarding an appropriate routine
- As with pacing – avoid overexertion
- Muscles may need to be strengthened, and balanced in addition to lengthened

Tip 4: Encourage Relaxation

- Guided imagery
- Progressive muscle relaxation
- Meditation
- Breathing retraining
- Calming music

Tip 5: Address Sleep Concerns

- Sleep Hygiene
- Stimulus Control
- Associating bed with sleep
- Sleep studies
- CBT-I Cognitive Behavioral Therapy for Insomnia
- Imagery rehearsal for nightmares

Tip 6: Treat Distress and Mental Health Concerns

- Psychological Assessment
- Psychotherapy & Counseling
- Psychiatric interventions
Tip 7: Promote Mindful Attention

- Nonjudgmental focus on the here and now
- Learning to experience pain without judgment and shift focus flexibly
  - Jon Kabat-Zinn

Tip 8: Support caregiver communication

- Coyne's Interpersonal model of Depression:
  - Efforts to help and support give way to criticism and hostility
- Patients with chronic pain tend to get more support and criticism from their spouses
  - (e.g., reinforcement and punishment)

Tip 9: Manage Conflict

- Unpublished EMPOWER data
  - After accounting for cancer, physical, and psychiatric conditions, fear of expressing emotions still relates to higher levels of pain
  - Label anger
  - Approach conflict with assertiveness
  - Allow emotions to be expressed and information to flow
  - Adopt problem solving strategies

Tip 10: Meet Non-Adherence with Non-Judgement
Case

Cathy scheduled a visit with her physician who reviewed imaging and assessed her back pain. Her previous year's pain was probably an increase in her prior back pain. As she was gaining strength and confidence, the imaging was read and reassessed.

As she relaxed, she had more attention on increasing her confidence and understanding her back pain. She began to read up on condition and began to understand what she could do to help herself to improve her situation.

Her therapist encouraged her to gradually expose herself to situations he or she feared. She began to expose herself to the situations she feared and was able to maintain her focus on her goals. As she gained more confidence, she began to have more honest conversations with her daughters about her emotions.

Like many people with pain, she has ups and downs, but she is able to bounce back faster than before.

References:

Thank you!