Cognitive Behavioral Therapy
Self Management Pain and Recovery Approaches

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History – Impact-Audience-Platform
Opioid Stewardship

Impact – 52 million procedures annually

Audience – Urologic Surgeons-Chronic Disease Managers Birth-Death

Platform
- Wife-Sister of Urologists
- Addiction Psychiatrist Phase 3 RCT Buprenorphine
- Cognitive Behavioral/Family/Pharmacotherapy RCT
- Neuromodulation Interventionist (TMS, ECT)
Treatments For Pain Relief

Cognitive

Behavioral
- Learn new behaviors
- Manage environment

Pharmacologic
- Prevent withdrawal
- Reduce biologic drive for drug use
Non-narcotic methods of managing pain, including anti-inflammatories, acetaminophen, and non-medication approaches, should be used when appropriate and adequate.

https://www.auanet.org/guidelines/opioid-use
Cognitive Behavior Therapy
Change unhelpful thoughts- behaviors

Patients often have unrealistic expectations that...

...lead to the belief that opioids will always relieve pain, 
*therefore* more opioids equal more relief

...leading to unsanctioned dose escalation or continued requests for higher doses

Re-educate about realistic goals and potential opioid risks
Objectives

- Outline key components of Cognitive Behavioral Therapy

- Self management therapies reduce pain, enhance recovery and minimize opioid painkiller risks

- Pain Assessment and Management Joint Commission Standards https://www.jointcommission.org/topics/pain_management.aspx
Cognitive Behavioral Therapy

Aaron Beck, MD 1960s-present

- Evidence based
- Time-sensitive, structured, present-oriented psychotherapy
- Directed to solve current problems
- Helps clients change unhelpful thoughts and behaviors that lead to enduring improvement in their mood and functioning.
CBT uses many modalities

- Problem solving
- Dialectical behavior therapy
- Acceptance and commitment therapy
- Gestalt therapy
- Compassion focused therapy
- Mindfulness
- Solution focused therapy
- Motivational interviewing
- Positive psychology
- Interpersonal psychotherapy
- When it comes to personality disorders, psychodynamic psychotherapy.
CBT Techniques

- Socratic questions
- Guided discovery
- Behavioral and problem solving
- Emphasis depends on particular disorders
  - Panic Disorder: tests catastrophic misinterpretations of sensations
  - Anorexia: modification of beliefs about personal worth and control
  - Substance abuse: Focus on negative beliefs about self and permission-granting beliefs about substance use
Case: How to Catch Unrealistic Thoughts

“My tumor is so big... it's going to hurt to have my kidney taken out... I want you to give me the good stuff so I don’t feel or remember anything”....
What was just going through your mind?

**Cognitive model** – the way individuals perceive a situation more closely connected to their reaction than situation itself

**Automatic thoughts** – ideas that pops up in your mind
ABC’s of Cognitive Behavioral Therapy

**Antecedents**
- What happens before pain? Learn to expect it, catch thoughts, emotions (fear, dread…)
- Providers can help patients plan to anticipate pain, cues, triggers, stressors

**Behaviors**
- What can we teach and practice (new thoughts, new behaviors) to relieve pain
  - Mindfulness Mediation/Deep Breathing
  - Schedule Pleasant Activities
  - Activity/Rest Cycling
  - Progressive Relaxation

**Consequences**
- Problem solve, how to change pain free wishes to pain & recovery & avoid opioid risks?
PainCOACH: Cognitive Behavior Therapy for Chronic Pain

- Schedule Pleasant Activities
- Identify Automatic Negative Thoughts
- Create Coping Thoughts
- Mindfulness: Pleasant Imagery & Distractions
- Problem Solving
- Progressive Muscle Relaxation
- Cognitive Behavior Therapy
Objectives

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Evidence: Mindfulness Meditation Analgesia

- Non judgmental awareness of the present moment
- Cultivate with instructions and practice

“When the uninstructed run of the mill person is touched by a painful feeling, he worries and grieves, laments, weeps and is distraught.

It is as if the man were pierced by two darts, a physical and a mental dart”

Sallatha Sutta: The Dart
Mindfulness Meditation Skills

- Notice present, let present experiences come and go
- Techniques emphasize greater, more accepting awareness of present
- Focus on particular sensations or activities (e.g., breathing)
- Cultivate a more deliberate, gentler response to experiences
“But in the case of a well-taught disciple, when he is touched by a painful feeling, he will not be distraught.

It is one kind of feeling he experiences, a bodily one, but not a mental feeling.

It is as if a man were pierced by the first but no second dart.”
Brief Mindfulness Meditation

- 4 days: 80 minute enlightenment
- Close your eyes
- Breathe Deeply
- Note cool tingling air in, rise and fall of belly
- Feel warm air out your nose
- If distractor arrives, let it go...don’t judge
- Redirect thoughts to your breaths in & out

Meditation Reduced Pain

Brain Regions In Meditation Induced Analgesia

- Activation in OFC region changes context or meaning of pain

- Greater activation in ACC area control pains through attention and ability to regulate emotional response to pain

Deactivation of Thalamus

Brain regions supporting meditation-induced pain relief

Zeidan et al., 2011, Journal of Neuroscience
Meditation

Brain Changes Reduce Pain

- Mindfulness closes pain gate (thalamus), activates regions that allow for changes in interpretation/emotions (OFC, ACC)
- Don’t have to be a monk
- More you train in meditation, the more you can stabilize effects
- Like going to gym to work out your bicep
- No difference between physical and mental training
Activity Rest Cycling

- Review mini-practice and practices
- Introduce activity/rest cycling
- Identify activities user may overdo
- Create personal plan to use skill that fits personal activities and goals
- Discuss how other skills help with use of this one
- Set practice goals for this skill and review practice goals for other skills
Schedule Pleasant Activities

- Review activity/rest cycling and practices
- Introduce pleasant activity scheduling
- Demonstrate how to select and add pleasant activities to routine
- Problem solve
- Introduce concept of automatic negative thoughts
- Exercise to demonstrate how to identify automatic negative thoughts
- Set practice goals for this skill and review practice goals for other skills
Automatic Negative Thoughts vs Coping Thoughts

- Review pleasant activity scheduling
- Introduce concept of coping thoughts
- Identify negative thoughts and reactions to them
- Create coping thoughts to address negative thoughts
- Identify and address circumstances that hinder use of skills
- Set practice goals for this skill and review practice goals for other skills
# Pain & Other Psychiatric Conditions

<table>
<thead>
<tr>
<th>CONDITION</th>
<th>Current Incidence in Patients with Chronic Pain</th>
<th>Incidence in the General Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression</td>
<td>45%</td>
<td>5%</td>
</tr>
<tr>
<td>Anxiety Disorders</td>
<td>25%</td>
<td>3% to 8%</td>
</tr>
<tr>
<td>Personality Disorders</td>
<td>51%</td>
<td>10% to 18%</td>
</tr>
<tr>
<td>PTSD</td>
<td>2% civilian population</td>
<td>1% general population</td>
</tr>
<tr>
<td></td>
<td>49% veteran population</td>
<td>20% combat veterans</td>
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<td></td>
<td></td>
<td>3.5% to 15% in civilians with trauma</td>
</tr>
<tr>
<td>Substance Use Disorders</td>
<td>15% to 28%</td>
<td>10%</td>
</tr>
<tr>
<td>Somatoform Disorders</td>
<td>97% in patients with chronic low back pain in inpatient rehab programs</td>
<td>unknown</td>
</tr>
</tbody>
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Non-Pharmacologic Pain Assessment and Management Initiative

- Free perioperative written patient education checklists
  - http://pami.emergency.med.iax.ufl.edu/
  - Email: emresearch@iax.ufl.edu

- Choices for patients, providers and families

- How to manage environment

- Evidence Based Cognitive Behavioral Therapies
  - Guided Imagery
  - Biofeedback
  - Self-hypnosis
  - Deep Breathing

NONPHARMACOLOGICAL THERAPIES TO TREAT PAIN

What are nonpharmacological therapies for pain?

Nonpharmacological therapies are ways to decrease pain using non-medical approaches. Here are some examples of ways you can help manage your pain at home along with prescribed pain medications or as treatments on their own. Each person may respond to these therapies differently. Many of these therapies are easily performed at home for little to no cost.

- Heat: Helps decrease pain and muscle spasms. Apply heat to the area for 20 minutes every 2 hours as directed by your doctor. Use caution if sensation in the affected area is not normal such as in patients with neuropathy from diabetes, patients with poor circulation or spinal cord injuries so much heat or heat for a prolonged period of time may cause burns.
- Ice: Helps decrease swelling, muscle tension and spasm. Use an ice pack or put crushed ice in a plastic bag. Cover it with a towel and place it on the area for 15 to 30 minutes every hour as directed.
- Massage therapy: Helps relax tight muscles, decrease pain, and provide an overall way to decrease stress.
- Physical therapy may improve movement, strength, and decrease pain.
- Aromatherapy: Use of natural oils, extracts, and fragrances to relax, decrease stress, and reduce pain. For example, peppermint oil has been used to treat neuropathy and inflammation.
- Guided imagery: Involves the use of mental visualization to divert your attention away from pain. It may help you learn how to change the way your body senses and responds to pain.
- Laughter: Helps decrease stress, anger, fear, depression, and hopelessness.
- Music: May release natural chemicals in your body increasing energy levels, improving mood, and reducing pain.
- Biofeedback: Teaches your body to respond differently to the stress of being in pain.
- Self-hypnosis: Directs your attention to something other than your pain. For example, you might repeat a positive statement about ignoring the pain or seeing the pain in a positive way.
- Acupuncture: Uses very thin needles to balance energy channels in the body. This is thought to help reduce pain and other symptoms.
- Diaphragmatic Breathing: Helps reduce stress by breathing through your belly instead of your chest. Count slowly with each breath in and out to a predetermined number. This works best with at least 8 breaths/min.

Clinical Strategies to Reduce Pain & Opioid Use

- Educate patients, families and health care teams to build foundation to empower pain self management and limit opioid risks-safe storage and use.

- Clinical pathways and educational materials must include pain essentials, skills for how to manage pain with non-opioid alternatives, and safe storage and disposal of opioids.
  - Cognitive Behavior Therapies
  - Systemic non-opioid pain modulators (acetaminophen, NSAIDs).
  - Direct peripheral and/or central nervous blockades can be performed, including local/incisional, peripheral and neuraxial administration of analgesics such as bupivacaine.

- Multimodal pain relief has been shown to decrease and avoid reliance on opioid painkillers, reduce opioid related adverse events, and improve operative outcomes.
What is CBT for Chronic Pain?

- For all disorders, the CBT therapist
  - Starts to educate clients about CBT and diagnosis/medicalization of chronic pain
  - Helps clients set goals
  - Teaches clients essential thinking and behavioral skills

- Special emphasis to identify &
  - Modify maladaptive behaviors that have a role in maintaining pain
  - Increase adaptive behaviors
  - Correct maladaptive thoughts and beliefs
  - Increase self-efficacy for managing pain

- Additionally, many individuals with chronic pain have depression, anxiety, and sleep disorders, and CBT is also used to treat these conditions
Progressive Muscle Relaxation

- Introduce program and concepts of pain management & coping skills
- How thoughts, feelings and behaviors affect pain through pain ‘gate’
- Introduce progressive muscle relaxation
- Practice PMR
- Identify positive aspects of experience to reinforce use of skill
- Identify and address barriers to use of skill
- Describe importance of regular practice and how to set up practice reminders
- Set practice goals
Mini-Practices

- Review progressive muscle relaxation and practices
- Introduce “mini-practices”
- Practice sitting and standing mini-practices
- Identify positive aspects to reinforce use of skill
- Help identify and address barriers to use of skill
- Set up practice reminders and practice goals
References

References