Introduction to CBT-CP: Mental Health Settings

- Prevalence of chronic pain conditions within mental health settings ranges from 40%-50% (Gatchel & Dersh, 2002)
- 50% of enrolled veterans returning from Iraq and Afghanistan report significant pain (Kerns & Dobscha, 2009; Gironda, Clark, Massengale & Walker, 2006)

Who to refer?

- Patients who are able to acknowledge that they would benefit from learning some new strategies to better manage their pain (i.e. do not have an entirely external locus of control).
- Patients who have some cognitive flexibility and are not significantly cognitively impaired.
- Patients who are not completely invested in staying on high doses of opioids.
- Patients without significant psychotic or manic symptoms
- Patients who are able to engage in some form of physical rehabilitation
- Protocol not specifically designed for headache but patients may benefit if lower severity (not cluster headaches or frequent migraines).
Outdated Model- Specificity Theory

- Oldest theory of pain
- Physical pathology = pain
- Pain intensity = degree of physical pathology
- No additional influences
- Still the most widely held by patients and providers

Specificity Theory cont.

**Limitations**
- Many people continue to experience pain well after an injury has healed
- People with identical injuries report vastly different levels of pain
- Participants in experimental pain studies report vastly different levels of pain in response to the same stimulus
- People can report pain in the absence of any identifiable pathology
Specificity Theory cont.

Potential negative consequences:
- Providers question patients’ reports of pain when they cannot see evidence of damage
- Patients assume that the presence of pain indicates that something is very wrong physically (which increases pain perception)

A Cognitive-Behavioral Therapy for Chronic Pain

The Veterans Administration has developed a treatment model which combines and synthesizes useful theories and models from a variety of sources:
- Gate Control Theory
- Behavioral (Operant) Model
- Fear-Avoidance Model
- Biopsychosocial Model

CBT for CP

- Focuses on the interaction between thoughts, feelings, and behaviors that contribute to development and maintenance of chronic pain experience
- Immediate targets:
  - Perception of disability
  - Functional Impairment
  - Quality of Life
- Goal is to help patient “turn down the volume”
Self-Management Focus

- Central component of the intervention involves increasing patient's ability to self-manage chronic pain disorder
- Therapist assists patient in developing greater self-efficacy in managing chronic pain condition.
- Therapist reinforces instances of skill adoption and helps them link new skills to improved quality of life.

Cognitive Behavioral Model of Chronic Pain

Thoughts
- "I can't do this"
- "What is wrong with me?"
- "I am broken."

Emotions
- Fear, Anxiety, Depression

Behaviors
- Resting, Guarding, Over-activity, Inactivity, Social Isolation

Pain

Misguided Therapy!
Components of the CBT-CP Model

Gate-Control Theory:

Perception of pain is a function of sensory input from the body and perceptions from the brain. Pathways that process emotions and pain overlap by 85%. So factors that "open the gates" increase pain, and factors that "close the gates" help dampen or decrease pain, much like turning down the volume on a stereo.

Factors that open the gates: (examples) negative emotions, negative thoughts, focusing attention on the pain, overdoing it physically or not staying active enough, and socially isolating.

Factors that close the gates: (examples) positive emotions, positive thoughts, some moderate and well-paced activity, social engagement, and directing attention away from the pain.

The Fear Avoidance Model

- The experience of chronic pain can lead to extremely negative or catastrophic thoughts and the expectation that movement can lead to injury and increased pain.
- The expectation leads to increased anxiety regarding engaging in physical activity.
- Avoidance of the physical task leads to a drop in anxiety and reinforces further avoidance behaviors.

The Fear Avoidance Model- cont.

- Avoiding an increasing number of physical activities then leads to deconditioning/disuse.
- Failure to engage in rewarding activities due to the fear and deconditioning then leads to the development of depression over time.
- Much like treatment with PTSD, exposure to the feared, but safe stimuli is beneficial (e.g. graded or safe exercise).
Fear Avoidance Model

Disability → Onset of Pain → Recovery
Disuse → Depression
Avoidance → Painful Experience → Approach
Catastrophizing
Fear of Movement or Re-injury → Lower Fear

Behavioral Factors - Coping

Active
- Exercise
- Over-Activity

Passive
- Relaxation
- Pacing
- Resting
- Guarding

Social Factors - Solicitous Significant Others

- An individual who is highly responsive to a patient’s pain/pain behaviors
  - May actually increase a patient’s pain level (as compared to spouses/partners who suggest helpful but distracting coping strategies)
- Demonstrations of increased pain may garner additional attention/assistance
  - May also be secondary gains
- Solicitous spouse study: Presence of partner increased report of pain from a mild shock to primary pain area by three-fold. (Flor et al., 2002).
If solicitousness is at one end of a social continuum, then “punishing” is at the other end. Solicitousness Punishing

- Punishing responses are typically targeted at the patient’s expression of pain.
- This dynamic can occur with significant others and with providers:
  - Can lead to dramatic/dynamic (loud) expressions of pain experience in order to “be heard” by significant others or providers;
  - Can also lead to resignation and stoicism about pain (McCracken, 2005).

Spousal Concern
Social Factors - Social Roles

- Chronic pain can negatively impact a number of social status variables including:
  - Employment
  - Finances
  - Household roles
  - Isolation

Other components of the treatment

- Intake/Assessment
- Educate patient on Specificity Theory, Gate Control Theory, and CBT Model of Chronic Pain
- Goal Planning – short and long-term goals of patient
- Exercise and Pacing
- Relaxation Techniques
- Pleasant Activity Scheduling
- Cognitive Coping
- Sleep Hygiene
- Coping with Flare ups

Empirical Support for the VA CBT program - Initial Program Evaluation Results - CP

Veteran participants:
- Process and outcome data from the first two CBT-CP Training Program Cohorts
- Veterans who completed the protocol through session 10 to termination (n = 79)

Basic demographics:
- Gender: Male = 84.8%; Female = 15.2%
- Age: Mean = 50.4 years; Range = 25-69
- Ethnicity: Caucasian = 77.9%; African-American = 11.7%; Pacific Islander = 2.6%; American Indian or Alaskan Native = 1.3%; Other (self-identified) = 6.5%
- Service Era: Vietnam = 29.5%; Post-Vietnam = 23.1%; OEF/OIF/OND = 32.1%; Other (self-identified) = 15.4%
Changes in Ratings of Pain

Pain Numeric Rating Scale Ratings

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<tr>
<th></th>
<th>Worst</th>
<th>Average</th>
<th>Least</th>
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<tbody>
<tr>
<td>Initial</td>
<td>8.53</td>
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<td>4.37</td>
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<tr>
<td>Mid</td>
<td>8.26</td>
<td>6.31</td>
<td>4.42</td>
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<tr>
<td>Final</td>
<td>8.16</td>
<td>6.27</td>
<td>4.49</td>
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Significant decrease in rating of “worst” pain in the past week (p<.05, d=.24); “average” and “least” pain ratings were stable.

Changes in Subjective Distress

SUDS Distress Rating

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<tr>
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<th>Mean</th>
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<tbody>
<tr>
<td>Initial</td>
<td>6.71</td>
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<tr>
<td>Mid</td>
<td>6.23</td>
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<tr>
<td>Final</td>
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Significant decrease in SUDS (p<.01, d=.41)

Changes in Catastrophizing Cognitions

*PCS Total Score (Range 0-52)

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<table>
<thead>
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<tbody>
<tr>
<td>Initial</td>
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<tr>
<td>Mid</td>
<td>24.7</td>
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<td>Final</td>
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* Significant decrease in catastrophizing cognitions (p<.001, d=.71)

*PCS = Pain Catastrophizing Scale
Changes in Pain Interference in Life Domains

*MPI-INT Mean Score (range 0-6)

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<tr>
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<th>Initial</th>
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<tbody>
<tr>
<td>Value</td>
<td>4.64</td>
<td>4.42</td>
<td>4.20</td>
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</table>

- Significant decrease in mean rating of extent of pain interference (p<.001, d=.45)

*MPI-INT = Multidimensional Pain Inventory-Interference

Changes in Ratings of Quality of Life in Physical Health Domain

*WHOQOL-BREF: Physical Health Domain Score

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<tr>
<td>Value</td>
<td>31.1</td>
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<td>37.4</td>
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- Significant increase in rated quality of life relative to physical health (p<.001, d=.42)

*World Health Organization Quality of Life

Change in Depression Symptoms

BDI-II Total Score

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<tr>
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<th>Initial</th>
<th>Mid</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>27.1</td>
<td>23.9</td>
<td>21.4</td>
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</table>

- Significant decrease in depression symptom ratings (p<.001, d=.53)
References


Thank you!