Chronic Pain in Patients with Alcohol or Drug Use Disorders

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Overview

- Background information on overlap between pain and substance misuse
- Discuss strategy for intervening in drug and alcohol patients with pain
- Highlight the potential utility/feasibility of this approach:
  - Case examples
  - Pilot results
- Applying these findings to your clinic
Chronic Pain in Health System Users

- Chronic pain is common and problematic in individuals who use the US healthcare system:
  - ~50% of patients experiencing pain on a regular basis (Kerns et al. 2003).
  - Patients with pain report use more services (Kaur et al. 2007; Kerns et al. 2003).
  - Patients with pain have poor functioning and more psychiatric problems (Haskell et al. 2006; Kaur et al. 2007; Kerns et al. 2003).
Overlap between Chronic Pain and Substance Misuse

- In the general population, those with pain are more likely to have drug/alcohol use disorders and vice versa (Demyttenaere et al., 2007; Von Korff et al., 2005).
- Up to ~50% of patients in addictions treatment report chronic pain and up to 19% of patients seeking treatment for pain report a current substance use disorder (Polatin et al., 1993; Rosenblum et al., 2003).
- In addictions treatment, those with pain typically report more severe patterns of substance misuse, psychopathology and function limitations.
Impact of Pain on Addictions Treatment Outcomes

- Chronic pain is associated with a poorer course of post-treatment outcomes following SUD treatment (Larson et al. 2007).
- In a large addictions treatment program patients with pain were more likely to drop out of treatment and were less likely to be abstinent at 1-year than those without pain (Caldeiro et al. 2008).
Pain and the treatment of substance use disorders in clinical settings

About CPI
- Established in 1968, Community Programs, Inc is one of the largest treatment centers serving the metropolitan areas surrounding Flint, Saginaw & Detroit, MI.
- In addition to providing medically monitored detoxification for approximately 650 patients yearly, CPI also provides separate residential services to approximately 1,380 men and 400 women each year.
- In this program, approximately 70% of these participants were Caucasian, 26% were African American, 8% were married and the average age was 35.
- Participants typically stay in residential treatment at CPI for 60 days - over 77% complete their intended course of residential treatment.
- Example of patient with pain at CPI.
Frequency of pain and pain medication misuse at CPI

- Almost 100 CPI patients were screened:
  - over 53% reported pain of at least 5 or greater on a 0 – 10 scale.
  - Of those with pain, 85% reported at least some misuse of pain medications in the past 30 days.
  - 49% of those with pain would likely meet abuse or dependence criteria for pain medications.

- At the Ann Arbor VA Substance Abuse Clinic, approximately 62% of the patients reported moderate or higher pain during the past month.
Treatment of Pain

- Opiates are widely used to manage chronic pain.
- However, concerns in all patients due to:
  - Risk of abuse or diversion
  - Lack of data on long-term efficacy
  - Evidence that long-term use could decrease pain tolerance (e.g., Doverty et al. 2001).
- These concerns are magnified in those with substance use disorders.
CBT for Pain and Substance Use Disorders

Psychological interventions such as CBT have demonstrated efficacy for reducing pain and improving functioning in persons with a broad spectrum of pain-related conditions (McCracken and Turk 2002; Turk and Okifuji 2002).

Prior studies have typically excluded those with substance use disorders.

Only one existing study has explicitly examined the effects of CBT for pain in those with substance use disorders (Currie et al. 2003) and found significant reductions in pain, pain-related interference, medication misuse and more general measures of maladaptive coping from baseline to 12-month follow-up.

The goal was to examine the effectiveness of an integrated pain management (IPM) intervention for pain and substance misuse in patients treated for substance use disorders.
Case Example

- Older male patient
- Axis I: MDD, Cocaine Dependence, History of Alcohol Dependence, and Opioid Abuse.

Problems:
- Chronic Pain (Knees and back)
- Unemployed, inadequate income
- Feelings of inadequacy
- Medication noncompliance
- Poor relationship with prescriber
- Poor relationship with children and grandchildren

How do you conceptualize treatment in this patient?
Where do you begin???

*Patient information disguised to protect confidentiality.*
Conceptualizing Treatment: Fear Avoidance Model

- Pain Perpetuation and Exit Strategy
Where to begin:
Gate Control Theory Of Pain

Skills: Attention
Diversion, Pacing,
Activity Rest Cycle,
Behavioral Activation,
“SAS”, Hurt vs. Harm,
Sleep hygiene

Skills: Thought monitoring,
Catastrophic thought cycle,
Nonjudgmentally Thinking, Cognitive Restructuring, “SOLVE”

Skills: Acceptance,
thoughts feeding emotions,
Progressive Muscle Relaxation
Integrated Pain Management Group Intervention

- **Cognitive Content**
  - thought monitoring, cognitive reconceptualization and cognitive restructuring

- **Behavioral Content**
  - pacing, behavioral activation, and attention diversion

- **Life Skills Content**
  - problem-solving, sleep and exercise management, and communication skills
    - Integrated both cognitive and behavioral components in life skills sessions

- **Acceptance**
  - Learning to adapt to pain
Substance Use Disorders in IPM

- No single session focused exclusively on substance use.
- SUD coping skills were integrated into each session's specific pain-related focus.
- Conceptualized as a maladaptive coping response.
- Treatment goal: Manage pain without substance use by increasing healthy coping skills and improving self-efficacy.
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Cognitive Reframing: Defining Your Pain Continuum

Above this line identify what you are able to do at a certain point on the continuum and mark that point with an X.

Low_____________________________________________High

Below this line identify what you are not able to do at a certain point on the continuum and mark that point with an X.
Defining Your Pain Continuum

Above this line identify what you are able to do at a certain point on the continuum and mark that point with an X.

- Go for a walk
- Vacuum
- Do the dishes
- Watch a Movie
- Talk to friends

Low ________________________________ High

Below this line identify what you are not able to do at a certain point on the continuum and mark that point with an X.

- Laundry
- Go for a walk
- Mop the floor
Cognitive Restructuring

- Identifying negative thought cycle
- Truth of initial thoughts/reaction thoughts
- Nonjudgmental thinking
# Cognitive Restructuring

<table>
<thead>
<tr>
<th>Situation</th>
<th>Negative/Catastrophizing Thought</th>
<th>Emotion</th>
<th>Rate the Truth of the Negative Catastrophizing Thought (0=not true to 10=very true)</th>
<th>Nonjudgmentally describe the situation as it occurred.</th>
<th>Challenge the Negative Thoughts</th>
<th>Rate the truth of the challenge thought (0=not true to 10=very true)</th>
<th>Outcome Emotion</th>
</tr>
</thead>
<tbody>
<tr>
<td>My back is killing me and every time I pick up my grandkids my pain spikes.</td>
<td>They will never love me. I am a poor grandfather. My children won’t want to bring them around.</td>
<td>Depressed Hopeless Worthless</td>
<td>1</td>
<td>I cannot lift my grandkids from the floor due to increased back pain.</td>
<td>Just because I cannot lift them does not mean I cannot spend time with them and influence their life in other ways.</td>
<td>10</td>
<td>Hope</td>
</tr>
</tbody>
</table>
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Behavioral: Over Activity Cycle

- Over activity
- Prolonged Rest
- Extreme Pain

Stop work due to extreme pain
Behavioral Modification: Pacing

Moderate Activity

Scheduled Limited Rest

Stop work due to Scheduled Time-Limited Rest

Pain Level

Time
Cycle of Immobility and Behavioral Activation

- Chronic Pain
- Escape and Avoidance of Pain by Using Alcohol and Other Drugs
- Temporary Removal or Reduction of Pain
- Also Removal of Reduction of Pleasurable Activities
- Depressed Mood
- Decreased Activities

Behavioral Activation
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Communication Cycle

- Passive Communication
  - Reduction of Confrontation, Stress, Tension and Pain in Social Situations
  - Increased Guilt
    - Aggressive Communication
    - Decreased Self-Worth
  - Passivity
    - Reduced Pain
SAS Technique

- **State** the problem and its consequences.
  - “I’m glad to help you with any task, however I am unable to help because I have increased pain today”

- **Ask** for what you need.
  - “Due to my back pain I need you to ask ahead of time.”

- **Spell** out the advantages of cooperation.
  - “This way I can plan to be well rested or let you know to reschedule if I’m having a difficult day.”
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- Acceptance
  - Learning to adapt to pain
Acceptance in IPM

- Covered throughout all sessions.
  - E.g. Cognitive restructuring discussion of changeable versus unchangeable situations.
- Two specific sessions were focused on acceptance:
  1) Willingness to acknowledge using harmful coping vs. healthy coping
  2) Nonjudgmental description of emotions, thoughts, and situation that influence ability to implement healthy coping skills.
Progressive Muscle Relaxation in IPM

- Practiced at the end of each 90 min session
  - 5 – 20 min.
- Exercises included:
  - Progressive Muscle Relaxation (PMR)
  - Guided Imagery
  - Diaphragmatic Breathing
  - Thought Monitoring
  - Thought Management.
- Participants were provided with a 20 min PMR.
  - Encouraged to practice 20 min/day 3x/week.
Case Example Outcome

- Attended 7 of 12 sessions
- Despite high pain and stress ratings the patient reported:
  - Increase in acceptance of not being able to be an active grandfather
  - Decreased avoidance of grandchildren attributed to decreased feelings of inadequacy.
  - Attributed better mood management to increased activity
  - Increase in acceptance of pain during walking and the benefits of walking outweighing the pain
  - Increased compliance of medication management attributed to increase in acceptance of chronic pain
  - Increased confidence in ability to cope with stressors without substance misuse
Pilot Study Methods

- 28 participants from either the Ann Arbor VA outpatient addictions treatment clinic or CPI provided informed consent and completed the baseline assessment – approximately 80% completed the post-treatment follow-up.
- The majority of participants reported experiencing at least six months of chronic pain and eight (62%) endorsed five or more years of chronic pain.
- In the VA, patient medical records indicated that 54% were diagnosed with an alcohol use disorder, 31% with a marijuana use disorder, 15% with an opiate use disorder, 8% with a cocaine use disorder, and 8% with polysubstance abuse or dependence.
- 69% had a clinical diagnosis of depression, 39% PTSD, 15% Bipolar disorder; 23% were diagnosed with at least one personality disorder in their medical record.
Pilot Study Results

- Over 80% of individuals who initially consented to this project completed at least four sessions of the pain management group.
- The average number of sessions attended was 7.17 (SD = 3.24) out of 10-12 sessions total.
Pilot Study Results

- Overall, pain reduced significantly from an average of 6.4 (+ 2.1) to 5.3 (+ 2.2), \( p < .05 \) from pre- to post-treatment.

- Participants reported a significant increase in their self-efficacy to manage their pain with misusing drugs or alcohol [mean CPSS at baseline 146.2 (+ 49.9); mean CPSS at post-treatment 188.3 (+ 50.8), \( p < .01 \)].
# Pilot Study Results

<table>
<thead>
<tr>
<th>Measure</th>
<th>Pre Group Mean (SD)</th>
<th>Post Group Mean (SD)</th>
<th>Change</th>
<th>T-test</th>
<th>P-value</th>
<th>Effect Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASI (alcohol composite)</td>
<td>0.27</td>
<td>0.21</td>
<td>-0.06</td>
<td>1.96</td>
<td>0.04</td>
<td>0.23</td>
</tr>
<tr>
<td>ASI (drug composite)</td>
<td>0.12</td>
<td>0.11</td>
<td>0.02</td>
<td>0.86</td>
<td>0.20</td>
<td>0.08</td>
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<tr>
<td>TLFB Alcohol Frequency</td>
<td>3.07</td>
<td>2.29</td>
<td>-0.79</td>
<td>0.76</td>
<td>0.23</td>
<td>0.06</td>
</tr>
<tr>
<td>TLFB Drugs Frequency</td>
<td>2.79</td>
<td>0.579</td>
<td>-2.21</td>
<td>0.99</td>
<td>0.17</td>
<td>0.18</td>
</tr>
</tbody>
</table>
Conclusions

- Concepts of pain management, acceptance and relapse prevention/harm reduction can be combined into a cohesive group.
- Delivery of a pain management group is feasible in addictions treatment settings.
- Patients are willing to attend this group and reconsider their approach to pain and their substance use.
- Preliminary evidence indicates that participation in the group is associated with reductions in pain level, alcohol-related consequences, and increases in pain-related self-efficacy.
Next Steps in Research

- Improved measures of pain medication misuse are needed.
- Conduct a larger trial of the intervention in a VA addictions treatment program.
- Understand ways to better integrate pain behavioral treatment into addictions treatment programs.
Steps to improving pain management in addictions treatment

- Ask about pain – ask about prescription pain medications.
- Try to understand patients’ motivation for using pain medication – what are their beliefs about pain medications?
- Reinforce the message that managing pain does not always have to involve using a substance.
- Consider referrals to outside behavioral health providers.
- For clinics that already use CBT, consider adding a pain management group.
Acknowledgements

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