Managing Opioids and Chronic Non-Cancer Pain in Primary Care

Amber Martinson, PhD
March 7, 2019
Overview

- Lecture 1 (9:00AM)
  - Background opioids/chronic pain
  - Guidelines/laws re: opioid prescribing
  - Implications for primary care providers
  - Primary Care Pain Education & Opioid Monitoring Program (PC-POP) at SLC VAMC

- Lecture 2 (2:30PM)
  - Links among opioid use, overdose, mental health, and suicide
  - Prevention Approaches
    - Whole Health Approach
    - CBT for Chronic Pain
    - Brief CBT for Chronic Pain Group
Disclaimer

- Several slides adapted directly from PC-POP materials which were developed in collaboration with Jamie Clinton-Lont, MS-CNP
Terminology

- Narcotics, Opiates, & **Opioids** interchangeable = class of medications used to treat pain
- **Opiates**: All natural (or derived from opium)
- **Opioids**: Broader term—includes all opiates but also include chemicals that have been synthesized (anything that acts on the MU receptor)
- All opiates are opioids, not all opioids are opiates
- **Example**: Heroin and morphine are *opiates*; Fentanyl and methadone are *opioids*


# Common Opioids

<table>
<thead>
<tr>
<th>OxyContin®, Oxecta®, Roxicodone®</th>
<th>Percocet®, Endocet®, Roxicet®</th>
<th>Lortab®, Vicodin®, Lorcet®, Norco®</th>
<th>Only available in generic form</th>
<th>ConZip®, Ultram®</th>
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</thead>
<tbody>
<tr>
<td>Oxycodone/acetaminophen</td>
<td>Oxycodone/acetaminophen</td>
<td>Hydrocodone/acetaminophen</td>
<td>Codeine</td>
<td>Tramadol</td>
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<tr>
<td>Fentanyl Actiq®, Duragesic®, Ventura®</td>
<td>Hydromorphone Dilaudid®, Exalgo®</td>
<td>Meperidine Demerol®</td>
<td>Methadone Dolphin®, Methadone®</td>
<td>Morphine MS-Contin®, Duramorph®, DepoDur®, Astramorph®</td>
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</table>
**TOLERANCE:** It is common to build a tolerance to opioids. Over time it takes higher opioid doses to get the same pain relief.

**PHYSICAL DEPENDENCE:** It is common to be physically dependent if opioids are taken daily. Stopping opioids suddenly will cause withdrawal symptoms (nausea, sweating, headache, other).

**ADDICTION:** 1 out of 5 people on opioid therapy develops an Opioid Use Disorder. Addiction is characterized by compulsive use despite harmful consequences. The craving to get high and/or avoid withdrawal leads to drug abuse, taking higher/more frequent doses than prescribed. People may turn to illicit drugs, like heroin.

**OVERDOSE:** Opioids can cause a person to stop breathing and die. Opioids may be perceived as safe because they are prescribed by a doctor, but are in fact risky substances.
Why are opioids dangerous?

- Our bodies begin to build a tolerance for opioids, meaning we have to take more to get the same effect. People taking opioids for chronic pain are especially at risk because tolerance continues to grow even after the maximum dose has been reached.

- Drug tolerance may lead to physical dependency, addiction, and overdose.
PRESCRIPTION OPIOIDS ARE AS DANGEROUS AS HEROIN

The molecular composition of prescription opioids is almost identical to that of heroin.

OXYCODONE

HEROIN

https://www.opidemic.org/what-are-opioids
History Repeats Itself
The Opioid Prescribing Pendulum Swings Back & Forth With Time ---

**Swing Forth 1980’s:**

- Pharm Co’s aggressively Market the new drug as safer & better
- Joint Commission Standards mandated & The American Pain Society coined the phrase “Pain as the 5th Vital sign”
  - As such, the assessment of pain is as important as the other 4 VS's and ALL patient reports of pain are to be treated
Opioid Prescribing Rates Soar

- 1999 – 2010 opioid prescribing quadrupled
- In 2013, enough prescribed for every adult American to have their own bottle of pills
- More than 14,000 people in 2014 alone die from opioid overdose
- In 2015 heroin & fentanyl (Rx & illicit) increase


(National Institute on Drug Abuse, 2014).
Between 1999 & 2017, Overdose Death Rates Rise

- Between 1999 and 2015, Opioid-Related deaths QUADRUPLED (>169,000 deaths)
- 2015 – 2016, fentanyl (RX & illicit) accounts for almost ALL overdose deaths
- In 2017, the opioid-related death toll was equivalent to a September 11th EVENT EVERY 3 WEEKS!
The Prescribing Pendulum Swings Back: RX Rates Drop ~ 2014

- OD death rates **INCREASE**
- Opioid Rx **DECREASE**
- Illicit drug use & related deaths **INCREASE**
- OXYCONTIN reformulated, tamper-proof label
- Hydrocodone becomes Schedule II
- In 2015 heroin & fentanyl (Rx & illicit) increase

April 14, 2016

UP TO 80% OF OVERDOSES ARE ACCIDENTAL
When Compared to the Non-Veteran, How Do We Compare?

Veterans ARE:

- 2 x as likely to die from an accidental OD
- 4 x as likely to die when co-prescribed Opioids & Benzodiazepines
Why is this happening?

- **49%** of OD deaths happen to patients who take opioids and benzodiazepines together!

- Common Benzodiazepine examples:
  - Ativan
  - Valium
  - Xanax
Why else is this happening?

- **Opioids get in the Wrong Hands** – Children, Grandchildren, friends
- **Taking extra to feel less pain** – get away from emotional pain?
- **Stopping and restarting on your own** – have to get used to it again!
- **Something to do** – 12-25% of patients abuse their opioids
- **Poor Health at baseline** – Sleep Apnea (wear your CPAP!), COPD, Obesity
- **Other Risk Factors not considered** – high dose, taking with other central nervous system depressants (e.g., alcohol, benzos, sleeping meds)
Risk Factors for Opioid Overdose

- OSA, Pulm
- >65 or <30
- BMI >25
- History SUD
- Hospitalized Suicide <12 month
- Opioid & Benzo
- > 100 MEDD
- Opioid
The 2014 Opioid Safety Initiative (OSI) Memorandum from the Deputy Under Secretary for Health

The OSI is the first of several System-Wide Initiatives to address opioid overuse

The OSI was an effort to:

- Ensure opioid pain medications are used safely, effectively and judiciously, and

- To expand the use of non-opioid medications & non-pharmacologic pain modalities for chronic non-cancer pain

Seal et al. JAMA 2012; 307:940-7

Opioid Safety Initiative (OSI) requirements, Feb. 2, 2014; VA Memorandum from Deputy Undersecretary for Health for Operations & Management (10N)
July 2016, President Obama Signed The Comprehensive Addiction & Recovery Act (CARA) into Law

- CARA would expand prevention and educational efforts to prevent the abuse of opioids and heroin and to promote treatment and recovery

- **Title IX** of CARA imposes new obligations on VA:
  - Veteran-Centric care plans
  - Non-pharmacologic, self-management options
  - Overdose Education & Naloxone Distribution (OEND)
  - Screening & treatment of Opioid Use Disorders
  - Full Implementation of a facility-specific Stepped Care Model for Pain Management (SCM-PM)

CALL AN END to the OPIOID CRISIS

“We, as clinicians, are uniquely positioned to turn the tide on the opioid epidemic.”
2017, The Opioid Crisis Deemed A National Public Health Emergency!

- **S** Stepped Care Model of Pain Management
- **T** Treatment alternatives/complementary care
- **O** Ongoing monitoring of opioid usage
- **P** Practice Guidelines
- **P** Prescription monitoring
- **A** Academic Detailing
- **I** Informed consent for patients
- **N** Naloxone distribution
The Prescribing Pendulum Stays Back: What Is VA Doing NOW?

» Putting it all together: OSI, CARA, STOPPAIN
» Keep the momentum!
» With 90% of VA patients having their chronic pain managed in a primary care setting, we need to start in the primary care clinics.
Summary of VA/DoD Mandates

Monitoring and Education EVERY 1-6 MONTHS:
- Urine Drug Testing
- Controlled Substance Database Queries: ONE Prescriber only!
- Assessments: Function, Emotional Health, Quality of Life
- Enroll Veterans in Whole Health AND a nonpharmacological intervention for pain
- NARCAN distribution
- MEDD ≤ 50
- **GOAL** is IMPROVED FUNCTION, SAFETY, and COMMUNITY!
The Management of Chronic Pain Is a Challenge in Primary Care!

Is it realistic for our primary care providers to complete all VA/DoD mandates within a 20 minute face-to-face visit, when average number of health conditions to cover is >12?

No.
Primary Care Pain Education & Opioid Monitoring Program (PC-POP)

- An interdisciplinary consult team that implements the VA/DoD recommended guidelines for opioid prescribing >3 months for chronic non-cancer pain in primary care

- Current PC-POP Team:
  - Jamie Clinton-Lont, MS-CNP (Medical Director)
  - Amber Martinson, PhD (Program Manager)
  - Julie Carney, RN (Care Manager)
  - Tiffany Lowery, RN (Care Manager)

- Five component parts:
  1. Chart review
  2. Education
  3. Evaluation
  4. Prescription
  5. Action
First Component of PC-POP: Chart Review

Prior to Class:
- Review medical record for evidence of drug-related aberrant behaviors (e.g., CSD Query, UDS), I-Med Consent, history of substance use disorder(s), previous suicide attempts, hospitalizations, etc.
- VA Stratification Tool for Opioid Risk Mitigation (STORM) Report
  - New clinical decision support tool that identifies patients at-risk for overdose-/suicide-related adverse events, and provides patient-centered opioid risk mitigation strategies
  - Provides categorical % of risk of suicide or opioid overdose in next year
Second Component of PC-POP: Education

- Patients attend 1-hour class Q6months (SMA)
- PowerPoint lecture given re:
  - What opioids are and how to recognize and respond to an overdose (e.g., Naloxone education)
    - https://www.youtube.com/watch?v=tGdUFMrCRh4&feature=youtu.be
  - Statistics re: unintentional opioid overdose and how veterans are particularly at risk
  - How to keep medications safe from children and other household members in lock boxes or locked cabinets and the risks of sharing opioids with other people
  - Risks associated with coingesting opioids with alcohol, other drugs, and concurrent sedating medications, such as benzodiazepines
  - Whole Health approach to patient care; evidence-based nonpharmacological treatments available for chronic pain:
    - Cognitive-Behavioral Therapy for Chronic Pain (CBT-CP), Mindfulness Oriented Recovery Enhancement (MORE) Therapy, Living Well With Chronic Pain Class, Taking Charge of My Life and Health Class, Trauma Sensitive Yoga, and take-home self-help option
Third Component of PC-POP: Evaluation

During 1-hour class, patients complete norm-referenced assessment measures Q6months re:

- Anxiety (GAD-7)
- Depression (PHQ-9)
- Physical function (PROMIS 3a/6b/8b)
- Drug use/abuse (DAST)
- Quality of Life (QOL Scale)
Fourth Component of PC-POP: Prescription

- Prior to the end of each class, Rx for Narcan Nasal Spray and Polyethylene Glycol is provided as indicated
Fifth Component of PC-POP: Action

**Before patients leave class:**
- Develop patient-centered treatment plan which includes referral to one of the aforementioned nonpharmacological treatment interventions for pain
- Signed I-Med Consent

**After Class:**
- Document pertinent chart review findings, assessment findings, and treatment plan in medical record
- Communicate aberrant findings to prescriber in real-time via medical record documentation, phone call, and/or email
- RN follow-up call in-between classes
- PC-POP DNP-guided tapers provided upon request
Quick note

- PC-POP is NOT a specialty Pain Clinic
- PC-POP does NOT provide pain diagnoses
- PC-POP does NOT prescribe opioids

We are a care management team
Where Does PC-POP Go From Here?

- With the support of VASLC Whole Health (WH)Leadership, PC-POP will expand to all Primary Care Clinics at VASLC by 2020
- Need to expand nonpharmacological interventions to remote VA clinics first
  - Brief CBT-CP recently expanded
- Research
  - Between & within subjects outcomes study
  - Implementation study w/ USU (Maren Voss & Ashley Yaugher)
Questions?
Understanding Links among Opioid Use, Overdose, Suicide, and Mental Health

Amber Martinson, PhD
2:30PM Lecture
March 7, 2019
Lecture 2: Overview

- Background Information
  - Links among opioid use, overdose, mental health, and suicide

- Prevention Approaches
  - Whole Health Approach
  - CBT for Chronic Pain
  - Brief CBT for Chronic Pain Group

- General Discussion
  - Conclusions
  - Implications
  - Future Directions
A recent Veterans Administration (VA) primary care clinic survey found that:

- 71% of veterans reported moderate pain in 4.4 of 11 possible sites
- 35% reported constant pain
- 85% had pain lasting years

Pain medication was the primary treatment approach reported in the survey (68%)

However, 48% reported medication was ineffective and 33% had unsuccessful pain relief (Buse et al., 2005)

The prevalence of chronic pain in the general population is estimated at 15% (Hadjistavropoulos & Craig, 2005; Sareen et al., 2005)
Veterans with chronic pain also experience:

- Depression 44%
- Anxiety 20%
- Alcohol abuse/dependence 46%
- Narcotic abuse/dependence 18%

(Reid et al., J Gen Intern Med, 2002)
Veterans are at Increased Risk for an Accidental Overdose

- MH Disorders are in the **Top 5 Veteran Diagnosis**
- Veteran risk increases when the Veteran:
  - Has a Substance Use Disorder (SUD)
  - Has PTSD
  - Hasn’t or won’t connect w/ mental health services
  - Has poor coping or no coping skills
  - Inadequate support or homeless
  - 30-50% of the time anxiety, depression, and pain present together

Bohnert AS, Ilgen MA, Galea S, McCarthy JF, Bline FC. Accidental poisoning mortality among patients in the Department of Veterans Affairs Health System. Med Care 2011;49:393–396.


Opioids and Suicide

- Determining intentionality is difficult, so research is limited
- Higher doses of prescribed opioids are linked to higher suicide rates
- Opioid Use Disorders have a distinctly strong relationship with suicide compared with other SUDs
- More than 40% of suicide and overdose deaths in 2017 were known to involve opioids

Theories:

- Opioid use worsens depressive symptoms, which increase the risk of suicide, and directly causes death from intentional and unintentional overdose
- Increased availability of opioids is the underlying cause of increased nonmedical opioid use and opioid use disorders, which result in increased rates of suicide and overdose

Bohnert et al., 2019
More on Suicide

- Chronic Pain and Suicide
  - Chronic pain increases risk for suicide
  - Pain is associated with opioid overdose (association is mediated by the quantity of opioids prescribed)

- Mental Health Disorders and Suicide
  - Most mental health conditions are linked to an increased risk of suicide
  - Nearly all common mental health conditions are associated with unintentional overdose

A lot of things to consider!

Bohnert et al., 2019
### Rates of Death from Suicide and Overdose in the US, by Year

#### Table 1. Rates of Death from Suicide and Overdose in the United States, According to Year.*

<table>
<thead>
<tr>
<th>Cause of Death</th>
<th>Age-Adjusted Rate per 100,000 Americans</th>
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</thead>
<tbody>
<tr>
<td>---------------------------------------</td>
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</tr>
<tr>
<td>Suicide</td>
<td>10.4</td>
</tr>
<tr>
<td>Intentional overdose</td>
<td>1.2</td>
</tr>
<tr>
<td>Intentional overdose involving opioids</td>
<td>0.3</td>
</tr>
<tr>
<td>Unintentional overdose</td>
<td>4.3</td>
</tr>
<tr>
<td>Involving opioids</td>
<td>2.2</td>
</tr>
<tr>
<td>Suicide and unintentional overdose combined</td>
<td>14.7</td>
</tr>
<tr>
<td>Involving opioids</td>
<td>2.5</td>
</tr>
</tbody>
</table>

* Categories were determined on the basis of the codes of the International Statistical Classification of Diseases and Related Health Problems, 10th Revision, that were obtained from death records. Suicide deaths were those with an underlying cause of death coded as X60 through X84, Y87.0, or Z03. Unintentional overdose deaths were those with an underlying cause of death coded as X40 through X45. Deaths involving opioids were those with multiple cause of death codes recorded as T40.0 through T40.4 or T40.6. Data were obtained from the Centers for Disease Control and Prevention.²
Prevention Approaches

- Identify risk early (e.g., PC-POP components) and intervene with empirically supported treatments for pain, mental health symptoms, and/or SUDs
VA IS CHANGING:
WHOLE HEALTH APPROACH
Efficacy of CBT for Chronic Pain

- "Empirically Supported Treatment"
- Morley et al. (1999)
  - Meta-analysis of 25 RCTs
  - Concluded CBT significantly improved pain experience, cognitive coping/appraisal, and reduced behavioral expression of pain
- Hoffman et al. (2007)
  - Meta-analysis of 22 RCTs
  - Concluded CBT more efficacious compared to education/attention control group
CBT for Chronic Pain

- Otis' Managing Chronic Pain: A Cognitive-Behavioral Therapy Approach (Treatments That Work Series; Barlow)
  - 13, 90-minute sessions; 1:1; specialty clinic
- Murphy et al.'s Cognitive-Behavioral Therapy for Chronic Pain (VA CBT-CP Training Program VA Health Administration; Karlin & Cross)
  - 12, 90-minute sessions; 1:1; pain clinic

- Mental health providers integrated into primary care struggle to adapt these traditional evidence-based approaches for chronic pain, and they need data to support their delivery of high-quality care
We need CBT for Chronic Pain in Primary Care! But How?

- No standardized protocol
- Several VA sites are conducting CBT-based groups for chronic pain in primary care, though not consistently, and without any program evaluation data
- Only 2 published studies on brief CBT-CP in primary care, though both had more strict inclusion/exclusion criteria:
  - Lamb et al., 2010
  - Wetherell et al., 2011
- Handful of studies on brief EBTs in primary care, though not for chronic pain
- ACT, MBSR, MORE for Chronic Pain, though not studied in primary care model
- Many questions remain—need more research!
Outcomes of a 6-week Cognitive-Behavioral Therapy for Chronic Pain Group for veterans seen in primary care

Amber Martinson,1,6 Julia Craner,2,3 Jamie Clinton-Lont

Abstract
Primary Care Mental Health Integration (PC-MHI) visits are mandated to be brief, limited in number, and delivered in the primary care practice area. Current evidence-based protocols for Cognitive-Behavioral Therapy for Chronic Pain (CBT-CP) do not meet these PC-MHI requirements, however, and thus PC-MHI providers are often left with the daunting task of modifying these protocols for the primary care setting. The aims of the current study were to examine effectiveness for a brief CBT-CP Group (6, 50-min sessions) for patients seen in primary care with various chronic pain conditions and to assess whether opioid medication use was associated with treatment outcomes. The current study represents a single-arm treatment study in which outcomes were evaluated by comparing self-reported symptom levels at the beginning of treatment (Session 1) to the end of treatment (Session 6). Dependent variables included pain symptoms, physical function lower/upper body, family disability, emotional functioning, sleep problems, satisfactions with outcomes/care, pain-related anxiety, generalized anxiety, pain catastrophizing, and depressed mood. Seventy-seven participants were enrolled and completed the treatment group. They were 56.81 ± 13.11 years old, 61% male, 51.9% taking opioids, with 39% reporting multiple pain diagnoses. Results showed that participation in the Brief CBT-CP Group resulted in statistically significantly improvement across all dependent variables (except emotional functioning). Results also showed that there were no significant treatment-related differences between patients taking opioids compared with patients who were not on opioids. The current protocol for Brief CBT-CP is effective in a real-world setting and aligns with the PC-MHI model of care.

Implications
Practice: Brief Cognitive-Behavioral Therapy for Chronic Pain (CBT-CP) can be effectively implemented in the primary care setting, align with the Primary Care Mental Health Integration (PC-MHI) model of care, and improve pain, physical function, emotional function, sleep, satisfaction, generalized anxiety, pain-related anxiety, pain catastrophizing, and depression among veterans with chronic pain conditions in primary care.

Policy: Policymakers who want to decrease the economic burden of chronic pain and reduce the incidence of opioid-related deaths should explore feasible, nonpharmacologic interventions for chronic pain in primary care given that 90% of chronic pain patients receive their care in the primary care setting.

Research: Future research is needed to examine brief psychological interventions in primary care in general, as well as examine specific patient characteristics of responders vs. nonresponders to brief treatments so that such characteristics can help inform the referral process at the outset.
<table>
<thead>
<tr>
<th>Topic</th>
<th>Key Components</th>
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<tbody>
<tr>
<td>Session 1</td>
<td>*Introduction of group members, facilitators, group ground rules</td>
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<td>*Privacy and confidentiality</td>
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<td>*Pain education</td>
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<td>*Goals of 6-week CBT-CP Group</td>
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<td></td>
<td>*Pain willingness</td>
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<td></td>
<td>*CBT model as it related to pain</td>
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<td></td>
<td>*Therapy assignment: Pain Diary</td>
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<tr>
<td>Session 2</td>
<td>*Review Pain Diary assignment</td>
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<td></td>
<td>*Remedialization of stress</td>
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<td></td>
<td>*Diaphragmatic breathing, progressive (and passive) muscle relaxation, and</td>
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<td>nonjudgmental body-centered scan</td>
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<td></td>
<td>*Therapy assignment: Relaxation techniques</td>
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<td>Session 3</td>
<td>*Review relaxation assignment</td>
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<td>*Guided imagery</td>
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<td>*Time-based pacing</td>
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<td></td>
<td>*Pleasant event scheduling</td>
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<td></td>
<td>*Therapy assignment: Pleasant Events Schedule Questionnaire and time-based pacing</td>
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<tr>
<td>Session 4</td>
<td>*Review Pleasant Events Schedule Questionnaire and time-based pacing assignment</td>
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<td></td>
<td>*Cognitive-appraisal model of stress</td>
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<td>*Cognitive distortions re: pain</td>
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<td>*Techniques to challenge negative thoughts</td>
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<td>*Self-monitoring thoughts, feelings, and behaviors</td>
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<td>*Therapy assignment: Self-monitoring form</td>
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<td>Session 5</td>
<td>*Review self-monitoring assignment</td>
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<td>*Cognitive restructuring techniques</td>
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<td></td>
<td>*Impact of pain on sleep architecture and circadian rhythms</td>
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<td></td>
<td>*Common medications and substances that impact sleep</td>
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<td></td>
<td>*Changing thinking patterns about sleep</td>
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<td>*Therapy assignment: Sleep Diary</td>
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<tr>
<td>Session 6</td>
<td>*Review sleep diary assignment</td>
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<td></td>
<td>*Sleep hygiene</td>
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<td>*Stimulus Control Therapy</td>
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<td>*Review of topics discussed during the group</td>
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<td></td>
<td>*Relapse prevention and flare-up planning</td>
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<td>*Supplemental reading materials re: pain</td>
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<tr>
<td></td>
<td>*Therapy assignment: Continued application of skills and techniques as a means of working towards any unmet treatment goals</td>
</tr>
</tbody>
</table>

**CBT for Chronic Pain Group Overview:**

- 6, 50-minute sessions over 6 weeks
- See Table on left for session content
Critical Elements of Treatment: Providing a Convincing Treatment

Rationale
- Treatment only works if patients are engaged

Tips:
- “Remedicalization of stress”

![Graph showing cortisol levels with and without relaxation](image)

Write these shapes underneath x axis:
- $\wedge$ = Daily hassles (average is 40 per day)
- $0$ = Stealing moments of relaxation
Critical Elements of Treatment: Relaxation Training

- Learning to breathe correctly is one of the easiest methods of learning how to relax and help reduce pain
- Other techniques used:
  - Progressive Muscle Relaxation, Visual Imagery
  - Mindfulness Meditation, Nonjudgmental Awareness Body Scan
- Tips:
  - Focus more on techniques that align with a particular cohort
  - Revisit rationale often
  - Clarify how focusing on pain in a nonjudgmental way allows us to experience sensations in our bodies as they unfold and can help us learn how to differentiate between direct sensations and the indirect perceptions we put on those sensations
Critical Elements of Treatment: Cognitive Restructuring

- **Goals:**
  - Recognize cognitive errors and maladaptive thoughts, challenge those thoughts, and substitute more adaptive ones.
  - Create a more balanced way of thinking in order to reduce negative emotions that contribute to HPA axis dysregulation (glucocorticoid release) that contribute to pain circuitry activation.

- **Tips:**
  - Goal is not to generate “positive thoughts” but rather objective ones.
  - You’re not challenging the fact that they’re in pain, you’re challenging what it means about them that they’re in pain.
Critical Elements of Treatment: Time-based Activity Pacing

- Activity breaks are based on time intervals, not on how much of the job is completed
- Ideal for the patient who tends to over-do it (e.g., the weekend warrior, “This is the way I was trained”)

Tips:
- Use concrete illustrative examples
- Emphasize quality of life as a motivator
Critical Elements of Treatment: Sleep Hygiene/Stimulus Control Therapy

- **Goals:**
  - Target the modifiable factors that may be impacting their sleep
  - Review the impact of common classes of medications on sleep architecture
  - Create links between the bed/bedroom/bedtime with relaxation, drowsiness, and sleep (rather than frustration, arousal, and sleeplessness)

- **Tips:**
  - Acknowledge that unwanted awakenings from pain cannot be prevented completely
  - CBT for Chronic Pain Group **not** appropriate setting to conduct Sleep Restriction Therapy
  - Refer to CBT-Insomnia Group if sleep problems are paramount
<table>
<thead>
<tr>
<th>Variable</th>
<th>M (SD) or N (%)</th>
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<tbody>
<tr>
<td>Gender</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>47 (61.0%)</td>
</tr>
<tr>
<td>Female</td>
<td>30 (39.0%)</td>
</tr>
<tr>
<td>Marital Status</td>
<td></td>
</tr>
<tr>
<td>Married/Living with Partner</td>
<td>41 (53.2%)</td>
</tr>
<tr>
<td>Single</td>
<td>8 (10.4%)</td>
</tr>
<tr>
<td>Divorced</td>
<td>23 (29.9%)</td>
</tr>
<tr>
<td>Widowed</td>
<td>3 (3.9%)</td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td></td>
</tr>
<tr>
<td>White/Caucasian</td>
<td>66 (85.7%)</td>
</tr>
<tr>
<td>Black/African American</td>
<td>4 (5.2%)</td>
</tr>
<tr>
<td>Hispanic/Latino/a</td>
<td>5 (6.5%)</td>
</tr>
<tr>
<td>Age</td>
<td>56.81 (13.11)</td>
</tr>
<tr>
<td>Range</td>
<td>25-81</td>
</tr>
<tr>
<td>Education</td>
<td>14.30 (2.23)</td>
</tr>
<tr>
<td>Range</td>
<td>12-20</td>
</tr>
<tr>
<td>Number of Sessions Attended</td>
<td>5.31 (.67)</td>
</tr>
<tr>
<td>4 Sessions</td>
<td>9 (11.7%)</td>
</tr>
<tr>
<td>5 Sessions</td>
<td>35 (45.5%)</td>
</tr>
<tr>
<td>6 Sessions</td>
<td>33 (42.9%)</td>
</tr>
<tr>
<td>Number of Patients on Opioids on Admission</td>
<td>40 (51.9%)</td>
</tr>
<tr>
<td>Average Morphine Equivalent Daily Dose (MEDD) for Patients taking Opioids</td>
<td>58.59 (63.24)</td>
</tr>
<tr>
<td>Range</td>
<td>5-270</td>
</tr>
<tr>
<td>Patients taking ( \geq 100mg MEED )</td>
<td>6 (15.0% of those on opioids)</td>
</tr>
</tbody>
</table>
Table 3. Pain Diagnoses for Patients Completing CBT-CP Group (N = 77)

<table>
<thead>
<tr>
<th>Pain Diagnosis</th>
<th>N (%)a</th>
</tr>
</thead>
<tbody>
<tr>
<td>Musculoskeletal pain</td>
<td></td>
</tr>
<tr>
<td>Widespread</td>
<td>51 (66.2)</td>
</tr>
<tr>
<td>Localized</td>
<td>20 (26.0)</td>
</tr>
<tr>
<td>Fibromyalgia</td>
<td>11 (14.3)</td>
</tr>
<tr>
<td>Headache/facial pain</td>
<td>21 (27.3)</td>
</tr>
<tr>
<td>Radicular low back pain</td>
<td>6 (7.8)</td>
</tr>
<tr>
<td>Peripheral neuropathic pain</td>
<td></td>
</tr>
<tr>
<td>Polyneuropathy</td>
<td>1 (1.3)</td>
</tr>
<tr>
<td>Phantom limb</td>
<td>1 (1.3)</td>
</tr>
<tr>
<td>Central Neuropathic Pain</td>
<td></td>
</tr>
<tr>
<td>Spinal cord injury</td>
<td>1 (1.3)</td>
</tr>
</tbody>
</table>

a Note: frequencies add up to greater than 100% due to multiple pain diagnoses in 39% of the sample
Results: Comparison of Pain, Functioning, and Psychosocial Adjustment at Pre- and Immediately Post-Treatment for Patients \((N = 77)\) Completing CBT-CP Group

<table>
<thead>
<tr>
<th>Variable</th>
<th>Initial Session (M (SD))</th>
<th>Final Session (M (SD))</th>
<th>Comparison (paired (t)-tests)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pain Symptoms (S-TOPS)</td>
<td>72.08 (15.04)</td>
<td>65.04 (15.46)</td>
<td>(t(76) = 4.58, p &lt; .001, d = .52)</td>
</tr>
<tr>
<td>Physical Functioning – Lower (S-TOPS)</td>
<td>65.04 (24.41)</td>
<td>55.09 (25.44)</td>
<td>(t(76) = 3.59, p = .001, d = .41)</td>
</tr>
<tr>
<td>Physical Functioning – Upper (S-TOPS)</td>
<td>23.05 (25.86)</td>
<td>17.75 (23.74)</td>
<td>(t(76) = 1.99, p = .05, d = .23)</td>
</tr>
<tr>
<td>Family-Social Disability (S-TOPS)</td>
<td>51.54 (22.92)</td>
<td>44.81 (21.75)</td>
<td>(t(76) = 2.46, p = .02, d = .28)</td>
</tr>
<tr>
<td>Emotional Functioning (S-TOPS)</td>
<td>55.07 (31.36)</td>
<td>49.09 (27.28)</td>
<td>(t(76) = 1.85, p = .07, d = .21)</td>
</tr>
<tr>
<td>Sleep Problems (S-TOPS)</td>
<td>56.62 (20.25)</td>
<td>47.20 (20.63)</td>
<td>(t(76) = 4.87, p &lt; .001, d = .55)</td>
</tr>
<tr>
<td>Patient Satisfaction with Outcomes (S-TOPS)</td>
<td>44.68 (22.80)</td>
<td>57.40 (20.67)</td>
<td>(t(76) = -4.97, p &lt; .001, d = .59)</td>
</tr>
<tr>
<td>Patient Satisfaction with Care (S-TOPS)</td>
<td>51.22 (29.30)</td>
<td>59.58 (28.22)</td>
<td>(t(76) = -2.97, p = .004, d = .36)</td>
</tr>
<tr>
<td>Pain Anxiety (PASS-20)</td>
<td>47.35 (20.97)</td>
<td>39.68 (17.14)</td>
<td>(t(76) = 4.71, p &lt; .001, d = .54)</td>
</tr>
<tr>
<td>Pain Catastrophizing (PCS) Total Score</td>
<td>25.16 (12.92)</td>
<td>19.09 (10.50)</td>
<td>(t(76) = 5.91, p &lt; .001, d = .67)</td>
</tr>
<tr>
<td>Generalized Anxiety (GAD-7)</td>
<td>10.01 (5.67)</td>
<td>7.18 (5.41)</td>
<td>(t(76) = 5.16, p &lt; .001, d = .59)</td>
</tr>
<tr>
<td>Depressed Mood (PHQ-9)</td>
<td>12.88 (6.29)</td>
<td>9.68 (5.45)</td>
<td>(t(76) = 5.75, p &lt; .001, d = .66)</td>
</tr>
</tbody>
</table>
Results: Functional Outcomes (S-TOPS) at Pre- and Immediately Post-Treatment for Patients ($N = 77$) Completing CBT-CP Group
Results: Pain-Related Anxiety (PASS-20) & Pain Catastrophizing (PCS) Outcomes at Pre- and Immediately Post-Treatment for Patients (N = 77) Completing CBT-CP Group
Results: Anxiety (GAD-7) & Depression (PHQ-9) Outcomes at Pre- and Immediately Post-Treatment for Patients ($N = 77$) Completing CBT-CP Group
Results: The Relationship between Pretreatment Opioid Use Status and Treatment Outcomes for Patients (N = 77) Completing CBT-CP Group

<table>
<thead>
<tr>
<th>Outcome variable</th>
<th>Pretreatment</th>
<th>Posttreatment</th>
<th>Within-Subjects Effect (Time: pretreatment, posttreatment)</th>
<th>Between-Subjects Effect (Group: opioid use, no opioid use)</th>
<th>Interaction (Time x Group)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No Opioids M(SD)</td>
<td>Opioids M(SD)</td>
<td>No Opioids M(SD)</td>
<td>Opioids M(SD)</td>
<td>F(1,73)</td>
</tr>
<tr>
<td>Pain Symptoms (S-TOPS)</td>
<td>71.55 (15.41)</td>
<td>72.81 (14.46)</td>
<td>63.81 (18.68)</td>
<td>66.15 (14.25)</td>
<td>20.62</td>
</tr>
<tr>
<td>Physical Functioning – Lower</td>
<td>64.76 (23.92)</td>
<td>67.50 (23.10)</td>
<td>60.24 (24.93)</td>
<td>52.08 (24.66)</td>
<td>12.80</td>
</tr>
<tr>
<td>(S-TOPS)</td>
<td>23.28 (25.09)</td>
<td>21.04 (21.17)</td>
<td>18.81 (25.11)</td>
<td>15.63 (20.69)</td>
<td>3.48</td>
</tr>
<tr>
<td>Physical Functioning – Upper</td>
<td>58.75 (22.49)</td>
<td>46.25 (21.31)</td>
<td>48.75 (24.05)</td>
<td>42.66 (19.03)</td>
<td>5.97</td>
</tr>
<tr>
<td>(S-TOPS)</td>
<td>59.71 (29.55)</td>
<td>53.00 (32.20)</td>
<td>50.86 (29.34)</td>
<td>49.25 (26.25)</td>
<td>3.63</td>
</tr>
<tr>
<td>Family-Social Disability (S-TOPS)</td>
<td>55.24 (20.72)</td>
<td>58.38 (20.24)</td>
<td>47.60 (21.13)</td>
<td>48.06 (20.22)</td>
<td>20.73</td>
</tr>
<tr>
<td>Emotional Functioning (S-TOPS)</td>
<td>39.43 (23.00)</td>
<td>50.50 (21.48)</td>
<td>58.57 (22.77)</td>
<td>57.25 (18.94)</td>
<td>25.99</td>
</tr>
<tr>
<td>Sleep Problems (S-TOPS)</td>
<td>46.61 (27.88)</td>
<td>55.63 (30.84)</td>
<td>58.93 (28.57)</td>
<td>60.16 (28.96)</td>
<td>8.56</td>
</tr>
<tr>
<td>Patient Satisfaction with</td>
<td>13.97 (6.06)</td>
<td>12.28 (6.41)</td>
<td>9.80 (5.91)</td>
<td>9.85 (5.07)</td>
<td>33.83</td>
</tr>
<tr>
<td>Outcomes (S-TOPS)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patient Satisfaction with Care</td>
<td>12.00 (5.49)</td>
<td>8.68 (5.26)</td>
<td>8.29 (5.45)</td>
<td>6.53 (5.26)</td>
<td>27.50</td>
</tr>
<tr>
<td>(S-TOPS)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depressed Mood (PHQ-9)</td>
<td>50.77 (20.72)</td>
<td>45.30 (21.19)</td>
<td>43.49 (15.69)</td>
<td>37.30 (17.85)</td>
<td>24.50</td>
</tr>
<tr>
<td>Generalized Anxiety (GAD-7)</td>
<td>27.66 (12.53)</td>
<td>23.35 (13.27)</td>
<td>21.14 (10.03)</td>
<td>17.83 (10.76)</td>
<td>32.20</td>
</tr>
<tr>
<td>Pain-Related Anxiety (PASS)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pain Catastrophizing (PCS)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Qualitative Data**

Table 6. Qualitative Feedback for 6-week Cognitive-Behavioral Therapy for Chronic Pain (CBT-CP) Group.

<table>
<thead>
<tr>
<th>Patient Quotes from Qualitative Feedback Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>“I wish I had taken this course before going through all of the physical and medical procedures they put me through—back fusion surgery, RFAs, rhizotomy, injections… this class should be made known to chronic pain sufferers early on.”</td>
</tr>
<tr>
<td>“Enjoyed this class very much. Have found things that work well.”</td>
</tr>
<tr>
<td>“This group is amazing. I found it very helpful, not only for my pain but for my daily life stressors. I would recommend this group to any patient, male or female, pain-related or otherwise.”</td>
</tr>
<tr>
<td>“I think more people with chronic pain should take this class, because you know maybe they are missing out on something effective. I didn’t know that depression can intensify pain.”</td>
</tr>
<tr>
<td>“This was a great opportunity. The therapists are knowledgeable, approachable, and great at redirection. The class was very informative.”</td>
</tr>
<tr>
<td>“This is an important class. I really appreciate it.”</td>
</tr>
<tr>
<td>“Thank you. It is a great class. Keep up the great work. It helped me a lot. Thank you.”</td>
</tr>
<tr>
<td>“I just loved this class and I will make sure to adopt in my new lifestyle what I learned. Thank you so much!”</td>
</tr>
<tr>
<td>“Found chronic pain advice to be well presented, kept my interest always. I think it made me feel understood.”</td>
</tr>
<tr>
<td>“Thank you. Your class has helped me have a better quality of life and I hope more people can benefit the way I have. Thank you for what you are doing.”</td>
</tr>
<tr>
<td>“This class has helped me by teaching me to relax and not focus on my pain.”</td>
</tr>
<tr>
<td>“Thank you for the class! I have learned techniques that I am applying every day!”</td>
</tr>
<tr>
<td>“Thanks for a class that really helps.”</td>
</tr>
</tbody>
</table>

*Note: A total of 15 patients (19.5%) included a qualitative comment. Two were excluded because they were illegible. The remaining responses (n = 12; 15.6%) are listed above.*
Summary & Conclusions

- CBT for Chronic Pain Group can work in an Integrated Care Model when shortened to 6, 50-minute sessions and be effective
- Brief CBT for Chronic Pain Group significantly reduced impact of pain, physical functioning, family functioning, sleep, patient satisfaction, pain-related anxiety, pain catastrophizing, generalized anxiety, and depression
- Patients report qualitative benefits
- Other potential benefits?
Summary & Conclusions

- New mandates and guidelines re: opioids can help mitigate risk for suicide and overdose
- Need to incorporate nonpharmacological interventions for chronic pain
  - CBT-CP treats pain AND mental health/substance abuse issues
Special Thanks

- Jamie Clinton-Lont, MS, CNP
- Bill Marchand, MD & Whole Health
- Julie Carney, RN & Tiffany Lowery, RN
- Julia Craner, PhD, ABPP
- Renn Sweeney, PhD
- Tracy Black, PhD
Questions?