



## **Crisis=Opportunity: Reducing Medication Burden While Managing Chronic Pain**

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Clinical Associate Professor



### **Disclosure**

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▪ Advisory Board Member:

–Bicycle Health

–Lumina Analytics: Mission LISA (Learning Indicators of Substance Addiction)



## Learning Objectives

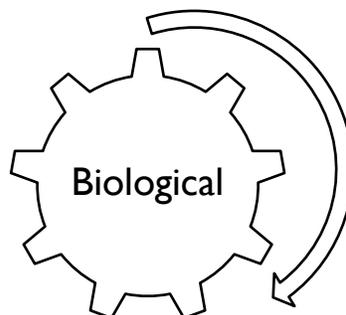
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- Identify the differences among tolerance, dependence, and addiction
- Recognize the role of biopsychosocial approaches to pain management to help address the opioid crisis

**Pain**week.

## Conceptualizing the Patient

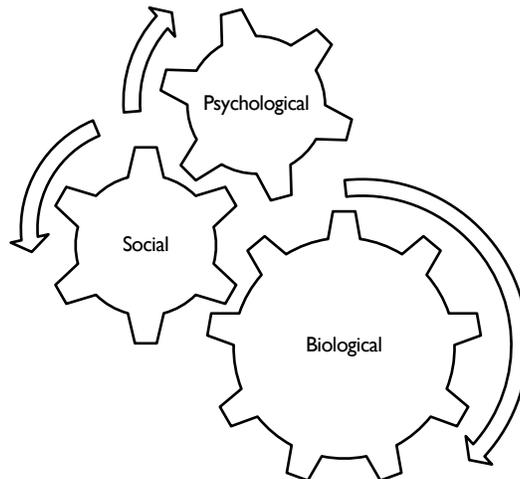
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## Conceptualizing the Patient

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## Conceptualizing Patient Treatment: Interdisciplinary Care

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- Treatment should focus on treating the whole person
  - Optimization of medical care
  - Physical rehabilitation
  - Lifestyle factors
  - Psychosocial variables

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## Clarification of Terminology to Help Inform Treatment

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- *Tolerance*: needing more of a substance to achieve the same effect
  
- *Physical Dependence*: onset of physiologic symptoms in the absence of a substance

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## Clarification of Terminology to Help Inform Treatment

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- *Psychological Dependence* (as applied to medication): perception that specific functionality is the direct result of a medication and could not otherwise be achieved
  
- *Addiction*: disease marked by continued engagement in a specific behavior despite the presence of adverse outcomes

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## Treatment Pathways

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### ■ Is addiction present?

–YES → Medication Assisted Treatment (MAT)

- Combination of pharmacologic and addiction-specific behavioral treatments

–NO → Interdisciplinary Pain Treatment

- Biopsychosocial treatment approach to optimize functioning

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## Interdisciplinary Management

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**Primary goal:**

**Help patients learn  
to live with pain**

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"Have you tried enjoying the aches and pains?"

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## Learn to Live with Pain?

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**LIFE**

**Pain**week.

## Learn to Live with Pain?

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**LIFE**

Family Friends Work School  
Sports Leisure Self-care Music  
Vacations Hobbies Dining  
Entertainment Socializing  
Cooking Cleaning Errands

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## Learn to Live with Pain?

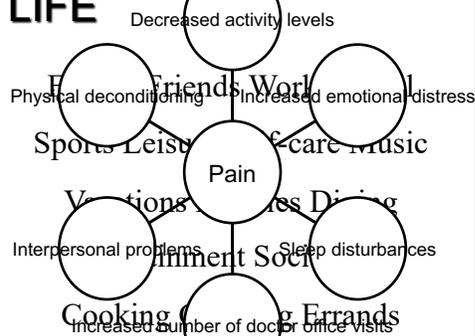
### LIFE

Family Friends Work School  
 Sports Leisure Self-care Music  
 Vacations Hobbies Dining  
 Entertainment Socializing  
 Cooking Cleaning Errands



## Learn to Live with Pain?

### LIFE



## Yes, Learn to Live with Pain!

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### LIFE

Family Friends Work School

Sports Leisure Self-care Music

Vacations Hobbies Dining

Entertainment Socializing

Cooking Cleaning Errands

Pain

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## Conceptualizing Patient Treatment: Interdisciplinary Care

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- Treatment should focus on treating the whole person
  - Optimization of medical care
  - Physical rehabilitation
  - Lifestyle factors
  - Psychosocial variables

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## Conceptualizing Patient Treatment: The Lack of Interdisciplinary Care

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- Treatment ~~should~~ fails to focus on treating the whole person
  - ~~Optimization of~~ medical care
  - ~~Physical rehabilitation~~
  - ~~Lifestyle factors~~
  - ~~Psychosocial variables~~

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## Unimodal Care: The Evolution of a Problem

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- Tolerance
- Physical Dependence
- Psychological Dependence
- Addiction

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## Prescription Opioids

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- Approximately 3 million Americans meet criteria for opioid abuse or dependence (4x increase since 1999)
- 60% of overdose deaths in the US (2014) were attributed to opioids
- 80% of new heroin users initiated SUD by misusing prescribed medications
- U.S. Department of Health and Human Services (2016). HHS research on pain treatment and opioid misuse and overdose- Translating science into action.
- U.S. Department of Health and Human Services (2015). *The opioid epidemic: By the numbers*. CDC, MMWR, 2015; 64; 1-5.
- U.S. Department of Health and Human Services (2016). HHS opioid initiative: One year later.



## Prescription Opioids: A Day in the US

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- 5,753 individuals misused rx opioids for the first time
- 116 opioid-related fatalities
- \$1.38 billion in economic costs
- U.S. Department of Health and Human Services: <https://www.hhs.gov/opioids/about-the-epidemic/index.html> accessed March 2018.



## Mission LISA Estimates

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- 13.8 million individuals (12 and older) misused prescription opioids and heroin in 2017
- 12.5% increase in drug OD deaths from 2016-2017
- 89% of above increase secondary to opioids
- Highest numbers of individuals affected by opioid misuse (including abuse and death): Pennsylvania, Florida, California, Ohio, Texas

▪ Lumina Analytics: <https://luminaanalytics.com/mission-lisa> accessed October 2018.



## Prescription Opioids

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- Opioid crisis declared a public health emergency
- HHS 5-point strategy
  - Better addiction prevention, treatment, and recovery
  - Better data
  - Better pain management (Crisis = opportunity)
  - Better targeting of overdose reversing drugs
  - Better research

▪ U.S. Department of Health and Human Services: <https://www.hhs.gov/opioids/about-the-epidemic/index.html> accessed March 2018.

▪ U.S. Department of Health and Human Services (2017). HHS opioid research portfolio brief: translating science into action.



## **Common Pain Psychology Curriculum Components**

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- Overview of pain
- Pacing of activities
- Pain & stress physiology
- Relaxation training
- Sleep hygiene

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## **Common Pain Psychology Curriculum Components**

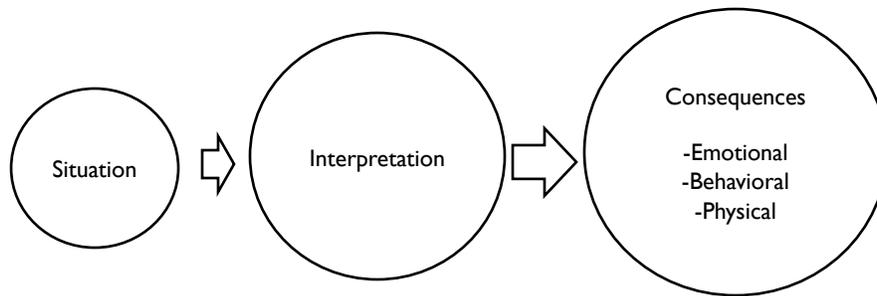
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- Identifying environmental stressors (work & home)
- Development of stress management techniques (e.g., cognitive restructuring)
- Assertiveness/communication skills development
- Flare contingency planning

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## Cognitive-Behavioral Model

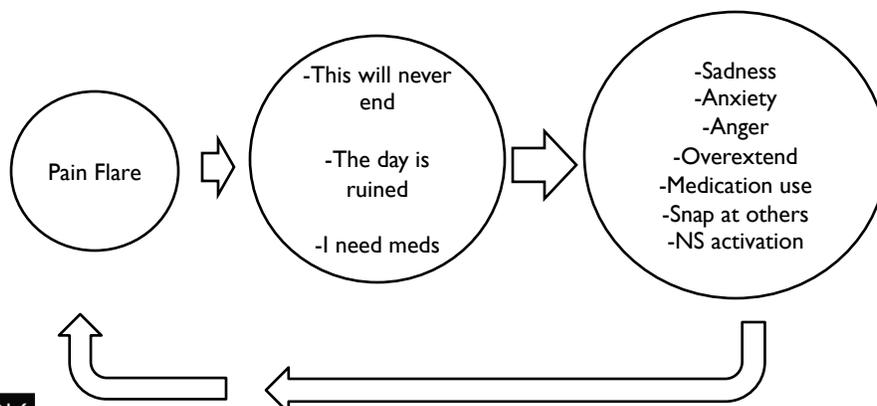
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## Using CBT: Pain Flare Example

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## Cognitive Restructuring

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- Is this helpful?
- Is this accurate?

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## Cognitive Restructuring

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### Thoughts

- This will never end
- The day is ruined
- I need meds

### Analysis

- Are these statements helpful?
- Are these statements accurate?

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## Cognitive Restructuring

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### Previous Thoughts

- This will never end
- The day is ruined
- I need meds

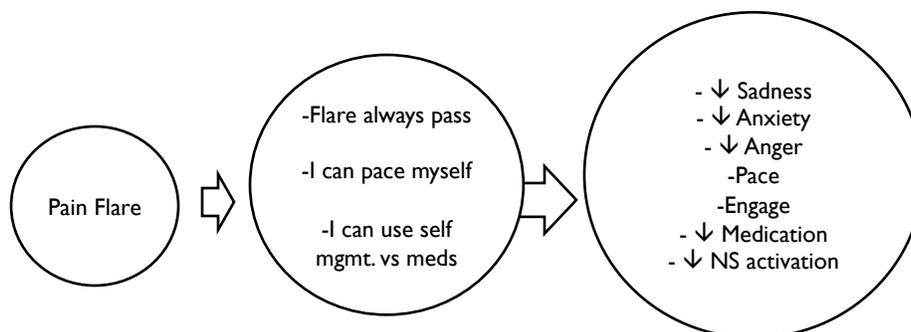
### Modified Thoughts

- My pain condition may be chronic but I know that this flare will eventually subside
- I don't know what the rest of the day will be like but I will make the most of it by pacing
- I can use behavioral self-management tools to influence my pain rather than reaching for more medication

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## Using CBT: Pain Flare Example

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## Other Essential Components

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- Consistent practice of breathing/relaxation strategies
- Identification of stressors that lead to aberrant medication use patterns and application of strategies to address them
- Reinforcement of acceptance
- Acknowledgement of chronicity and need for flare-management

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## Multidisciplinary Approaches and Opioid Weaning

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- 373 CPRP participants (3 week)
- ~57% on opioids at admission
- Assessments at admission, discharge, and 6-month (70% return rate; pain severity, depression, psychosocial functioning, health status, pain catastrophizing)
- Pain severity and depression higher in opioid users at admission
- Significant improvement on all variables at discharge, 6-month follow-up regardless of opioid status

Townsend, CO, Kerkvliet, JL, Bruce, BK, Rome, JD, Hooten, WM, Luedtke, CA, Hodgson, JE. (2008). A Longitudinal Study of the Efficacy of a Comprehensive Pain Rehabilitation Program with Opioid Withdrawal: Comparison of Treatment Outcomes Based on Opioid Use Status at Admission. Pain, 140(1): 177-189.

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## Multidisciplinary Approaches and Opioid Weaning

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- 705 (600 completed) outpatient interdisciplinary program participants
- Opioid group tapered with cocktail
- Opioid group improved same as non-opioid group (pain severity, catastrophizing, sleep, treatment satisfaction, pain-related functioning domains)

Murphy, JL, Clark, ME, Banou, E (2013). Opioid Cessation and Multidimensional Outcomes After Interdisciplinary Chronic Pain Treatment. Clin J Pain, 29(2): 109-17.



## Stanford Comprehensive Interdisciplinary Pain Program (SCIPP)

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- Typical patient
- Pain conditions accepted
- Admission criteria



## **Interdisciplinary Treatment**

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- Physical Therapy
- Occupational Therapy
- Medication Optimization (cocktail)
- Lifestyle/Behavioral Modification

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## **Scheduled Activities**

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- AM Rounds
- Physical Therapy
- Occupational Therapy
- Pain Coping Skills Class
- Individual Provider Visits

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## Unscheduled Activities

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- Independent practice
- Walking
- Activity tracking log

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## Behaviors Reinforced

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- Consistent across all team members, including nursing
- Application of self-management skills
- Increased activity levels
- Focus on functioning

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## Behaviors not Reinforced

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- Pain behavior
- Medication focus
- Somatic complaints
- Inactivity

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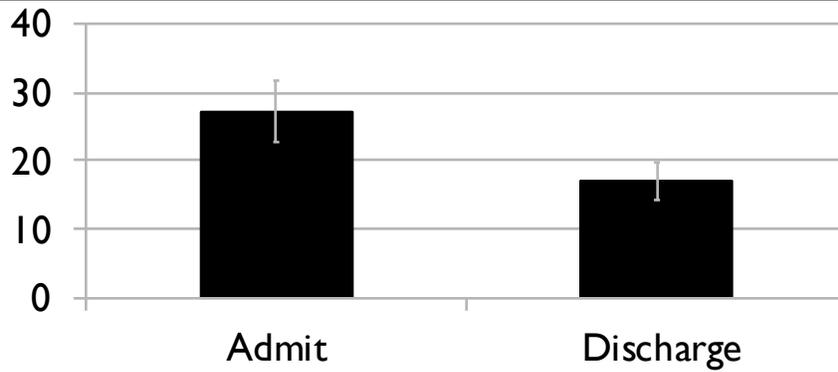
## SCIPP Outcomes

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- n = 44 (19 male, 25 female)
- Minimum of 1 pain diagnosis
- Assessments:
  - Center for Epidemiologic Study of Diseases—Depression Scale (CESD)
  - McGill Pain Questionnaire (MPQ)
  - McGill Pain Questionnaire-Visual-Analog Scale (MPQ-VAS)
  - Profile of Mood States (POMS)
- Administered within 24 hours of admission and discharge

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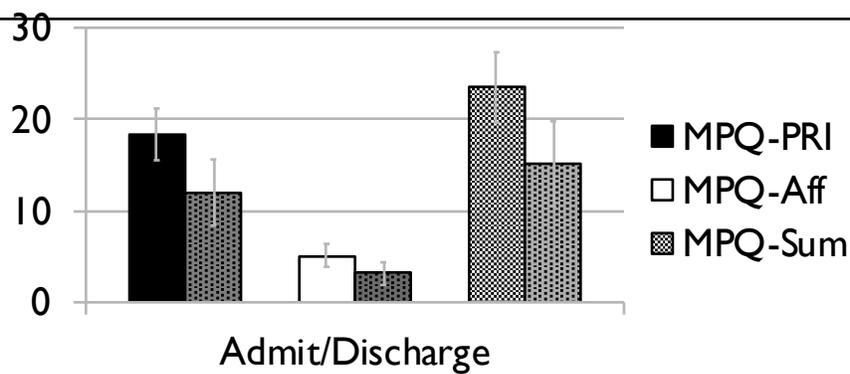
## CESD



Total CESD score was significantly lower at discharge than at admission ( $p < .001$ ).



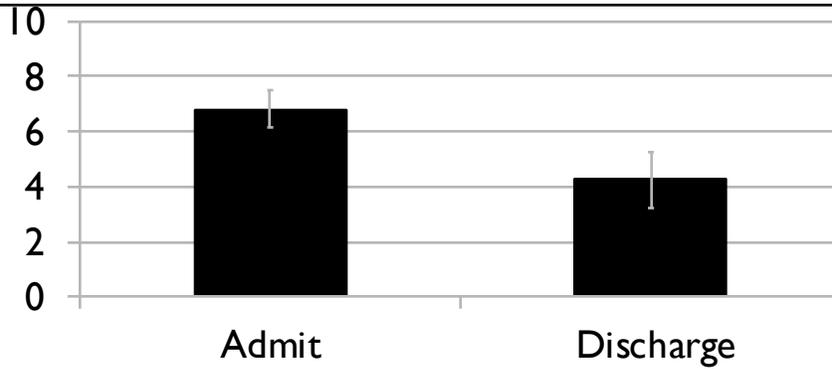
## MPQ



Significant reductions were detected on the MPQ sum score ( $p = .005$ ) and each of the MPQ subscales – PRI (single item pain rating index;  $p = .007$ ) and Affective ( $p = .01$ ).



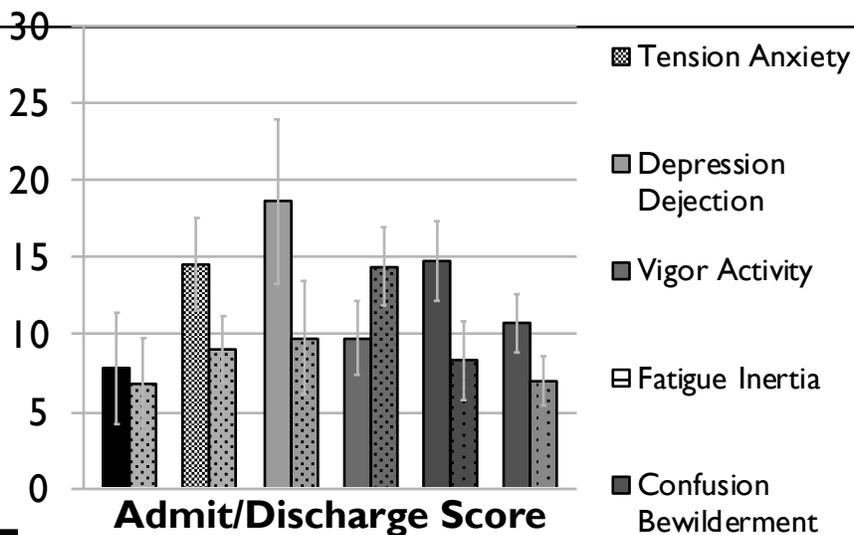
# MPQ-VAS



Average pain as assessed by the MPQ-VAS was also significantly lower upon discharge than at admission ( $p < .001$ ).



## Profile of Mood States



## SCIPP Outcomes

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- Significant changes on
  - CESD ( $p < .001$ )
  - MPQ-VAS average pain ( $p < .001$ )
  - MPQ summary score ( $p = .005$ )
  - MPQ pain rating index ( $p = .007$ )
  - MPQ affective score ( $p = .01$ )
  - POMS Tension-Anxiety ( $p = .005$ )
  - POMS Depression-Dejection ( $p = .001$ )
  - POMS Vigor-Activity ( $p = .005$ )
  - POMS Fatigue-Intertia ( $p = .002$ )
  - POMS Confusion-Bewilderment ( $p = .003$ )
  - POMS Total Mood Disturbance ( $p = .01$ )
  
- No significant difference on
  - POMS Anger-Hostility

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## Beyond CBT

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- Acceptance and Commitment Therapy (ACT)
  
- Biofeedback Training
  
- Mindfulness-Based Interventions
  
- Emotional Awareness and Expression Therapy

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## Outpatient Application

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- Participation in CBT-based coping skills class
- Concurrent medication reduction
- Consider joint psych-MD appointments



## Addressing Chronic Pain in the Context of Substance Use Disorders

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- Medication reduction can improve functional outcomes
- Interdisciplinary care enhances results and can lead to decreased medical utilization



Lambeek, Van Mechelen, Knol, Loisel, Anema (2010); Flor, Fydrich, Turk (1992)

Buchner, Zahlen-Hinguranage, Schiltewolf, Neubauer (2006); Linton & Ryberg (2001)

## Addressing Chronic Pain in the Context of Substance Use Disorders

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- Medication Assisted Treatment (MAT): Combination of pharmacologic treatment AND behavioral interventions
- Employ use of a biopsychosocial formulation of the patient's predicament versus focusing solely on a biomedical model
- Emphasize focus on function versus pain elimination: Set functional goals (resumption of normal activities, RTW) and use activity tracking sheets

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## Questions?

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