



Crisis=Opportunity: Reducing Medication Burden While Managing Chronic Pain

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Clinical Associate Professor



Disclosure

▪ Advisory Board Member:

–Bicycle Health

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

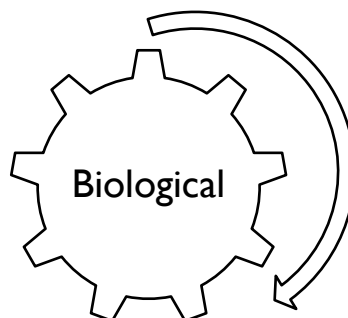


Learning Objectives

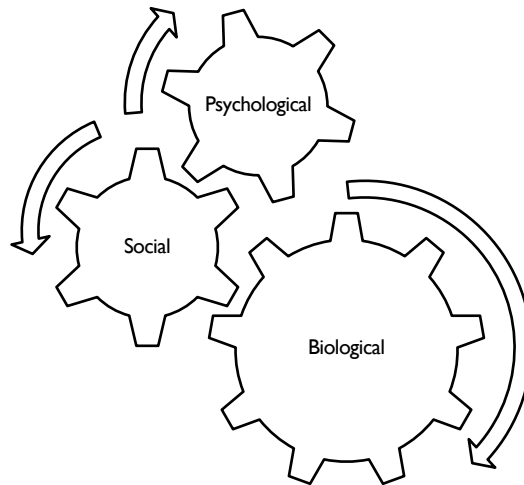
- Identify the differences among tolerance, dependence, and addiction
- Recognize the role of biopsychosocial approaches to pain management to help address the opioid crisis



Conceptualizing the Patient



Conceptualizing the Patient



Painweek.

Conceptualizing Patient Treatment: Interdisciplinary Care

- 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

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



Clarification of Terminology to Help Inform Treatment

- *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



Treatment Pathways

■ 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

PainWeek

Interdisciplinary Management

Primary goal:

**Help patients learn
to live with pain**

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"Have you tried enjoying the aches and pains?"

PainWeek

Learn to Live with Pain?

LIFE

Painweek.

Learn to Live with Pain?

LIFE

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

Painweek.

Learn to Live with Pain?

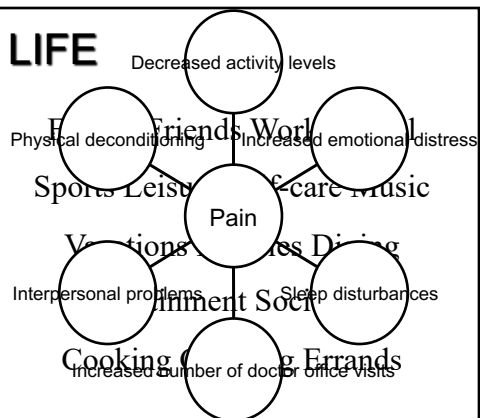
LIFE

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

Painweek

Learn to Live with Pain?

LIFE



Painweek

Yes, Learn to Live with Pain!

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

- 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

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

Painweek_®

Unimodal Care: The Evolution of a Problem

- Tolerance
- Physical Dependence
- Psychological Dependence
- Addiction

Painweek_®

Prescription Opioids

- 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

- 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

- 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

- 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

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

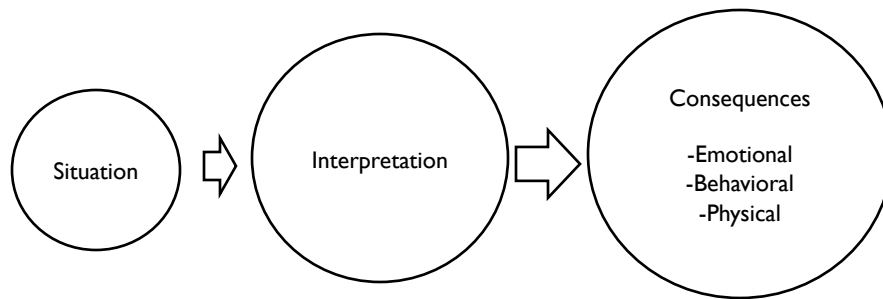


Common Pain Psychology Curriculum Components

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

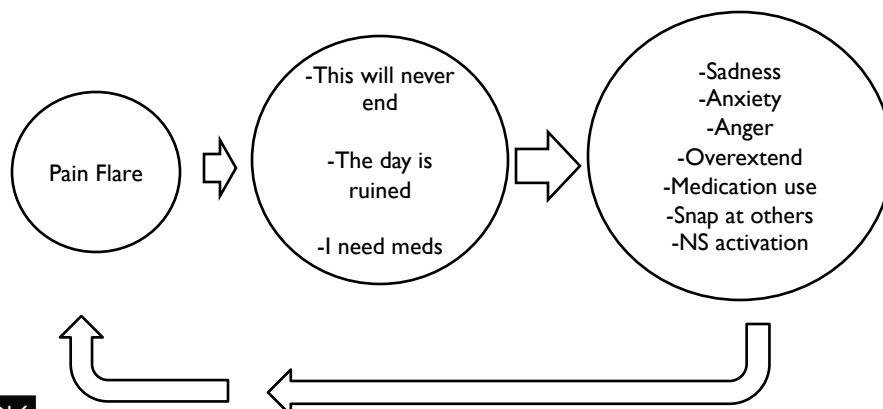


Cognitive-Behavioral Model



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Using CBT: Pain Flare Example



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Cognitive Restructuring

- Is this helpful?
- Is this accurate?



Cognitive Restructuring

Thoughts

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

Analysis

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



Cognitive Restructuring

Previous Thoughts

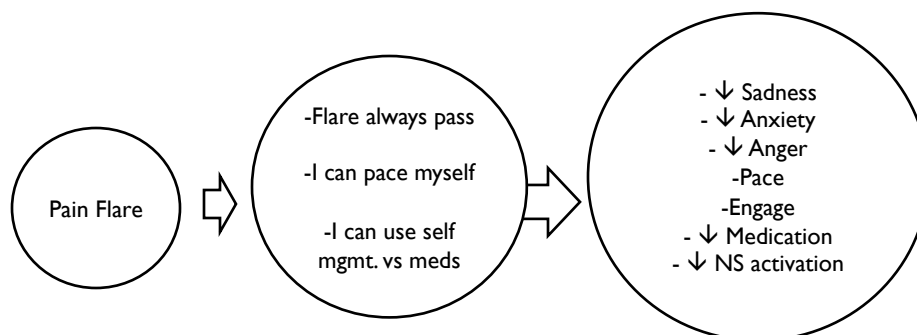
- This will never end
- The day is ruined
- I need meds

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

PainWeek

Using CBT: Pain Flare Example



PainWeek

Other Essential Components

- 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



Multidisciplinary Approaches and Opioid Weaning

- 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.



Multidisciplinary Approaches and Opioid Weaning

- 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)

- Typical patient
- Pain conditions accepted
- Admission criteria



Interdisciplinary Treatment

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



Scheduled Activities

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



Unscheduled Activities

- Independent practice
- Walking
- Activity tracking log



Behaviors Reinforced

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



Behaviors not Reinforced

- Pain behavior
- Medication focus
- Somatic complaints
- Inactivity

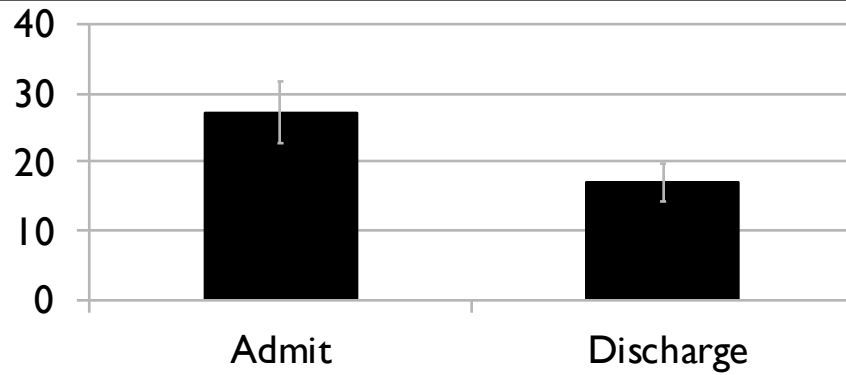


SCIPP Outcomes

- 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



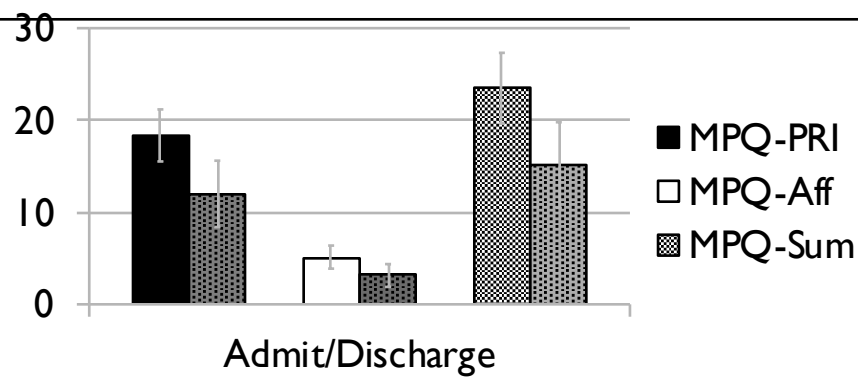
CESD



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

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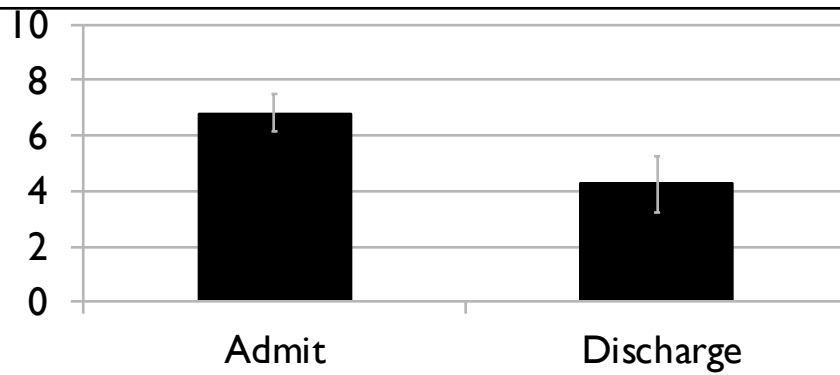
MPQ



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 ($p = .01$).

PainWeek

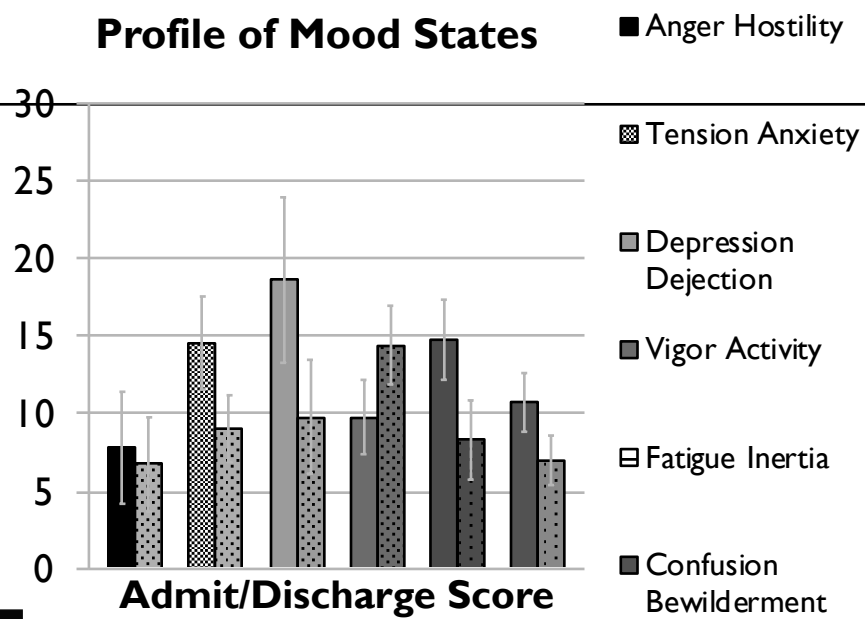
MPQ-VAS



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

PainWeek

Profile of Mood States



PainWeek

SCIPP Outcomes

- 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



Beyond CBT

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



Outpatient Application

- 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

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

Addressing Chronic Pain in the Context of Substance Use Disorders

- 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



Questions?

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