Crisis=Opportunity: Reducing Medication Burden While Managing Chronic Pain

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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

![Biological Conceptualization](image)
Conceptualizing Patient Treatment: Interdisciplinary Care

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

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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

Interdisciplinary Management

Primary goal:

Help patients learn to live with pain
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

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

Learn to Live with Pain?

LIFE

Decreased activity levels
Physical deconditioning
Increased emotional distress
Interpersonal problems
Sleep disturbances
Increased number of doctor office visits
Yes, Learn to Live with Pain!

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

Conceptualizing Patient Treatment: Interdisciplinary Care

- Treatment should focus on treating the whole person
  - Optimization of medical care
  - Physical rehabilitation
  - Lifestyle factors
  - Psychosocial variables
Conceptualizing Patient Treatment: The Lack of Interdisciplinary Care

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

Unimodal Care: The Evolution of a Problem

- Tolerance
- Physical Dependence
- Psychological Dependence
- Addiction
**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


**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

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


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

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

- Situation
- Interpretation
- Consequences
  - Emotional
  - Behavioral
  - Physical

Using CBT: Pain Flare Example

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

- Sadness
- Anxiety
- Anger
- Overextend
- Medication use
- Snap at others
- NS activation
Cognitive Restructuring

<table>
<thead>
<tr>
<th>Thoughts</th>
<th>Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>This will never end</td>
<td>Are these statements helpful?</td>
</tr>
<tr>
<td>The day is ruined</td>
<td>Are these statements</td>
</tr>
<tr>
<td>I need meds</td>
<td>accurate?</td>
</tr>
</tbody>
</table>

Is this helpful?

Is this accurate?
Cognitive Restructuring

<table>
<thead>
<tr>
<th>Previous Thoughts</th>
<th>Modified Thoughts</th>
</tr>
</thead>
<tbody>
<tr>
<td>• This will never end</td>
<td>• My pain condition may be chronic but I know that this flare will eventually subside</td>
</tr>
<tr>
<td>• The day is ruined</td>
<td>• I don’t know what the rest of the day will be like but I will make the most of it by pacing</td>
</tr>
<tr>
<td>• I need meds</td>
<td>• I can use behavioral self-management tools to influence my pain rather than reaching for more medication</td>
</tr>
</tbody>
</table>

Using CBT: Pain Flare Example

- Flare always pass
- I can pace myself
- I can use self mgmt. vs meds

- ↓ Sadness
- ↓ Anxiety
- ↓ Anger
- Pace
- Engage
- ↓ Medication
- ↓ NS activation
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

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)


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

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 ($p=.01$).
Average pain as assessed by the MPQ-VAS was also significantly lower upon discharge than at admission (p<.001).
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, Kool, Loisel, Anema (2010); Flor, Fydrich, Turk (1992)
Buchner, Zahrtien-Hinguranage, Schilttenwolf, 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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