Minimizing Pills and Maximizing Skills: Achieving Successful Opioid Cessation in Chronic Pain

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Disclosures

- Nothing to disclose
Learning Objectives

- Review current evidence based approaches to opioid tapering in chronic noncancer pain
- Discuss the benefits of opioid tapering in terms of improvements in pain, function, and mood
- Identify the difference between the terms addiction, abuse, dependence, and tolerance
- Explain of the role of behavioral interventions in the management of pain and the data supporting their use

Does pain serve any function or purpose?
Is all pain the same?

<table>
<thead>
<tr>
<th>Acute Pain</th>
<th>Chronic Pain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hurry = Harm</td>
<td>Hurt ≠ Harm</td>
</tr>
<tr>
<td>- Avoidance decreases damage</td>
<td>- Fear-avoidance cycle</td>
</tr>
<tr>
<td>Etiology:</td>
<td>Etiology:</td>
</tr>
<tr>
<td>- Clear pathway</td>
<td>- Many unknowns</td>
</tr>
<tr>
<td>- Often single cause</td>
<td>- Multifactorial</td>
</tr>
<tr>
<td>Treatment Course</td>
<td>Treatment Course</td>
</tr>
<tr>
<td>- Fixed end point</td>
<td>- No fixed end point</td>
</tr>
<tr>
<td>- Immobilization often essential for recovery</td>
<td>- Immobilization can worsen condition</td>
</tr>
<tr>
<td>- Medications</td>
<td>- Medications: Caution</td>
</tr>
</tbody>
</table>
Management Approach to Pain

- Similar to other chronic health conditions lacking a cure
- Focus on quality of life & functioning

Example: Diabetes

- Regulate diet
- Check blood sugars
- Exercise regularly
- Take insulin/medications
- Monitor wounds
Chronic Pain Management

- Medical optimization
  - Physician, NP, PA

- Physical reconditioning
  - Rehabilitation provider (PT, OT)

- Behavioral/lifestyle modification
  - Pain psychologist

Interdisciplinary Management

**Diabetes**
- Regulate diet
- Check blood sugars
- Exercise regularly
- Take insulin/medications
- Monitor wounds

**Chronic Pain**
- Medical optimization
- Physical reconditioning
- Behavioral/lifestyle modification
Biomedical vs Biopsychosocial

Biomedical vs Biopsychosocial (cont’d)
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? (cont’d)

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

Learn to Live with Pain? (cont’d)

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

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

Chronic Pain Management Dilemma

- Medical optimization
  - Physician, NP, PA

- Physical reconditioning
  - Rehabilitation provider (PT, OT)

- Behavioral/lifestyle modification
  - Pain Psychologist
Medications

- Physical dependence
- Psychological dependence
- Tolerance
- Abuse
- 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
- US Department of Health and Human Services (2016). HHS research on pain treatment and opioid misuse and overdose: translating science into action
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

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
- US Department of Health and Human Services
Common Pain Psychology Curriculum Components

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

Common Pain Psychology Curriculum Components (cont’d)

- Identifying environmental stressors (work & home)
- Development of stress management techniques (eg, cognitive restructuring)
- Assertiveness/communication skills development
- Flare contingency planning
Deconstructing Pain Psychology

- Relaxation training
- The role of cognitive processes

Stress, the Nervous System, and Pain

- Central Nervous System
  - Brain
  - Spinal Cord
- Peripheral Nervous System
- Somatic Nervous System
- Autonomic Nervous System
  - Sympathetic Nervous System: Activates the body to deal with stressful situations
  - Parasympathetic Nervous System: Helps the body return to a calmer state
Stress, the Nervous System, and Pain (cont’d)

Sympathetic activation

- Increased heart rate
- Increased blood pressure
- Increased muscle tension
- Constriction of blood vessels
- Release of stress hormones
- Pupil dilation
- Change in breathing patterns
- Additional systemic changes

Parasympathetic activation

- Decreased heart rate
- Decreased blood pressure
- Decreased muscle tension
- Expansion of blood vessels
- Discontinuation of stress hormone release
- Pupil constriction
- Change in breathing patterns
- Additional systemic changes
Stress, the Nervous System, and Pain (cont’d)

Pain

Nervous System Activation

Stress, the Nervous System, and Pain (cont’d)

Pain

Nervous System Activation
Stress, the Nervous System, and Pain (cont’d)

Pain

Nervous System Activation

Stress, the Nervous System, and Pain (cont’d)

Pain

Nervous System Activation

Anxiety
Stress, the Nervous System, and Pain (cont’d)

- Pain
- Anger
- Anxiety
- Guilt
- Nervous System Activation
Stress, the Nervous System, and Pain (cont’d)

Stress, the Nervous System, and Pain (cont’d)

Pain

Sadness

Guilt

Anger

Anxiety

Nervous System Activation

Stress, the Nervous System, and Pain (cont’d)

Diet

Sleep

Financial Strain

Pain

Sadness

Guilt

Anger

Anxiety

Nervous System Activation

Relationship Issues
Relaxation Training

- Breathing exercises
  - Parasympathetic activity
  - Distraction

Stress, the Nervous System, and Pain

- Diet
- Sleep
- Financial Strain
- Pain
- Relationship Issues
- Sadness
- Guilt
- Anger
- Anxiety
- Nervous System Activation
Stress, the Nervous System, and Pain

The Role of Cognitions
The Role of Cognitions (cont’d)

- Thought processes are often rooted in our core perception of ourselves and our roles in this world

- Usually shaped by early experiences

- Much of our maladaptive behaviors are rooted in dysfunctional thought patterns

- Can take a significant amount of time and work to alter our automatic thought processes
Catastrophization

- Exaggerated perception of a situation being worse than it actually is
  - Magnification
  - Rumination
  - Helplessness

Catastrophization (cont’d)

- Implications
  - Pain expectations → affective distress
  - Somatic hypervigilance/attention → increased pain perception
  - Activity reduction coping strategy → fear-avoidance cycle
  - Persistent symptoms
  - Disability
The Role of Cognitions

Pain

- This will never end
- Life is terrible
- The day is ruined

Sadness
- Anxiety
- Anger
- Overextend
- Snap at others
- NS activation

Cognitive Restructuring

- Is this helpful?
- Is this accurate?
## Cognitive Restructuring (cont’d)

<table>
<thead>
<tr>
<th>Previous Thoughts</th>
<th>Modify Thoughts</th>
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<tbody>
<tr>
<td>▪ There is nothing I can do to control this</td>
<td></td>
</tr>
<tr>
<td>▪ Life is terrible</td>
<td>▪ Are these statements helpful?</td>
</tr>
<tr>
<td>▪ Nothing will get done today</td>
<td>▪ Are these statements accurate?</td>
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<td>▪ There is nothing I can do to control this</td>
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<tr>
<td>▪ Life is terrible</td>
<td>▪ I can practice self-management skills</td>
</tr>
<tr>
<td>▪ Nothing will get done today</td>
<td>▪ Life may feel terrible now, but I know this flare will end</td>
</tr>
<tr>
<td></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>
</tbody>
</table>
The Role of Cognitions

Pain

- I can practice self mgmt
- This moment will pass
- The day is not set

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

Empirically Validated Treatment: Self-Management Education

- Lambeek, Van Mechelen, Knol, Loisel, Anema (2010)
- Linton & Ryberg (2001)
- Flor, Fydrich, Turk (1992)
Empirically Validated Treatment

  - Randomized control trial (n=213)
  - All patients received regular primary care tx + minimal treatment (information pack, pamphlet) or 6-session CBT treatment
  - Assessments administered at pretest and 12-month follow-up
  - Risk for developing long-term sick absence decreased 9x in CBT group
  - CBT participants had decreased medical utilization compared to increase in other groups

Empirically Validated Treatment (cont’d)

- Linton & Nordin (2006)
  - 5-year follow-up of Linton & Andersson (2000) study, also used supplemental records from the National Insurance Authority
  - 97% completed follow-up questionnaire
  - CBT group had significantly less pain, higher activity, better quality of life, and better general health compared to minimal treatment group
  - Risk of long-term sick leave 3x higher in the non-CBT group
  - CBT group had significantly less lost productivity costs
Empirically Validated Treatment (cont’d)

  - Patients deemed HR for development of chronic disability were randomly assigned to an early intervention FR group (n=22) or a nonintervention group (n=48). Low risk nonintervention subjects also evaluated (n=54)
  - Patients tracked at 3 month intervals over the course of a year
  - HR patients in the early intervention group had significantly lower rates of healthcare utilization, medication use, and self-report pain variables

Empirically Validated Treatment (cont’d)

  - HR nonintervention group displayed more symptoms of chronic pain disability compared to low risk subjects
  - Greater cost savings associated with early intervention ($12,721) vs no intervention group ($21,843). Cost variables included healthcare visits, medication, lost wages, early intervention program cost
Cochrane Review of Multidisciplinary Programs for Pain

- 41 studies, 6858 participants
- LBP > 3 months with some prior treatment
- MDP vs unimodal care focused on physical factors, standard care with GP
- Moderate quality evidence for improvements in pain and daily functioning
- Increased likelihood of RTW in 6-12 months


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-Inertia (p=.002)
  - POMS Confusion-Bewilderment (p=.003)
  - POMS Total Mood Disturbance (p=.01)

- No significant difference on
  - POMS Anger-Hostility

Other Literature Findings

- 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

Other Literature Findings (cont’d)

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


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

Risk Evaluation and Mitigation Strategy (REMS)

- Safety education for prescribers & patients

- Multiple possibilities
  - Prescription Drug Monitoring Programs (PDMPs)
  - UDS
  - Risk assessment tools (ORT, SOAPP, etc)
  - Individual evaluation(s)
  - Visit frequency
  - Treatment plan components

Psychology in REMS

- Guidance re: creation

- Service delivery
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 vs focusing solely on a biomedical model

- Emphasize focus on function vs pain elimination: Set functional goals (resumption of normal activities, RTW) and use activity tracking sheets

Questions?

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