Pain Management for Persons Living with HIV: Integrative Approaches Within an Opioid Epidemic

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Learning Objectives

• Describe common HIV-related pain syndromes from a pathophysiological perspective
• Explain the impact of analgesics (with focus on opioids) on pain in an HIV-positive patient population
• Identify psychological aspects of pain in the context of an HIV diagnosis
• Understand integrated pain management approaches to pain in the context of HIV

Introduction/Overview of HIV and Pain within the Opioid Crisis

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“All hands on deck!”

• In 2017, the NIH released a statement calling for an “all hands on deck” approach to end the opioid epidemic, stating the need for “safe, effective, non-addictive treatments to manage chronic pain.”

• Simply reducing the supply of opioids will not fully address the root of opioid misuse: the persistence of chronic pain.

HIV/AIDS Definitions

• HIV: Human Immunodeficiency Virus. Progressive failure of the immune system that allows life-threatening opportunistic illnesses (cancers, PCP, toxoplasmosis) to thrive. Untreated, HIV progresses to AIDS.
• AIDS: Acquired Immunodeficiency Syndrome. Immune system is severely compromised and vulnerable to opportunistic illnesses.
  – CD4+ < 200 cells/mm³ (normal CD4+ 500-1600 cells/mm³).
  – 1 or more opportunistic illnesses such as: encephalopathy, tuberculosis, pneumocystis pneumonia (PCP), mycobacterium avium complex (MAC), lymphoma, herpes
• PLHIV – People Living with HIV

• Viral load: measurement of HIV copies in a blood sample. Measured in copies/mL
  – Declared “undetectable” if it is under 40-75 copies/mL, BUT person is still HIV+ and needs to stay on ART
HIV Disease process

- HIV – a lentivirus ("slow virus") that attacks the immune system
- 4 transmission routes:
  - Blood
  - Semen
  - Vaginal fluid
  - Breast milk

Stages of HIV infection

- Acute HIV Infection (weeks 2-4 post infection):
  - Develop flu-like symptoms; “worst flu ever”
  - Large amounts of HIV in the blood and immune system
  - Body produces HIV antibodies and cytotoxic lymphocytes → seroconversion to AIDS
  - Greatest transmission risk
- Chronic HIV Infection:
  - HIV reproduces at low levels
  - People may be asymptomatic but still contagious

Chronic pain and HIV

- Estimated that chronic pain may be reported in as high as 85% of people living with HIV (PLHIV), as compared to 11% in the general population
- Chronic pain has emerged as a treatment priority for PLHIV and is associated with psychological and functional morbidity as well as decreased retention in HIV primary care.
- PLHIV also at risk for opioid misuse, addiction and overdose

Background

- 2016: approximately 20 percent of adults suffered from chronic pain in the United States, costing an estimated $635 billion in both direct and indirect costs.
- Of those, nearly half had high-impact chronic pain, meaning pain that limited at least one major life activity.

Background: Prior Studies of PT, Chronic Pain and HIV

- Retrospective chart review examining pain outcomes for IDP patients with chronic pain who had and had not received PT over the same time period.
2017 Study

- **PT group:**
  - 65.2% of patients reported a decrease in pain and 28.3% were pain-free after PT treatment.
  - All pain medication classes decreased EXCEPT opioids which stayed the same.

- **Non-PT Group:**
  - 74% of patients had no change or an increase in pain during the same timeframe. Only 26% of the subjects reported improved pain scores during the timeframe.
  - All pain medication classes INCREASED.

2018 Study

- Retrospective chart review of IDP patients with chronic pain diagnosis
- Outcome variables: self-reported pain scores (0-10) and morphine milligram equivalents (MME)
- Outcomes measured pre- and post- PT treatment

2018 Study Conclusions

- The most common treatments used among patients with decrease in pain and MME (n=4, 18.2%) include: home exercise program, manual therapy including soft tissue mobilization (STM), education and Kinesiotape.
- Of the participants whose MME did not change, 80% demonstrated a decrease in pain by the end of the study. This supports the use of PT for chronic pain management, however reflects the need for careful consideration of the complexity of opioid use and addiction.

HIV, Opioids and Chronic Pain

- Prescription opioid misuse appears to be more common amongst PLHIV. Effectively addressing debilitating pain symptoms may decrease disability and greatly improve quality of life in this patient population.
- There is a “perfect storm” of HIV, Opioids and Chronic Pain.
- What is the solution?

PT, HIV and pain

- Physical therapy has widely been widely utilized as a safe, non-pharmacologic alternative for chronic pain management in the general population.
- Given the high prevalence of pain syndromes amongst PLHIV, PTs must be aware of how to best manage their patients’ HIV-related pain, ideally incorporating integrative pain management techniques.

Pain Pathway

R. Sandoval PT PhD
Outline

- Pain pathway, chronic pain; neuro-inflammatory processes unique to HIV disease and AIDS; and the intersection of these.
- Specific considerations of pain in HIV (disease pathology and course, inflammation)
- Pharmacological Management of Pain
- “Standard of Care” for pain: pharmaceuticals - NSAIDs, acetaminophen-based medications and their contraindications with HIV
- Opioids

References

Common Pain Syndromes in PLHIV
Musculoskeletal Pain
Peripheral Neuropathy

Multifactorial Etiology of Chronic Pain in PLHIV

- Direct effects of HIV infection
- Chronic inflammation and immune activation
- Side-effects of ART drugs or other drugs
- Neurologic mechanisms
- Comorbidities / Multi-morbidity
  - Musculoskeletal Disorders
  - Peripheral neuropathy
  - Other
- Opportunistic infections
- Aging / Frailty
- Psychosocial influences
- Prescription opioid misuse and heroin use
- Gender and ethnic differences in perception & expression of pain

Musculoskeletal Pain in PLHIV

Clinical Manifestations: Infectious

- Cellulitis and soft tissue abscess
- Pyomyositis
- Septic bursitis
- Septic arthritis
- Osteomyelitis
- Tuberculous: spondylitis / spondyloitis
- arthritides
- osteomyelitis
tenosynovitis
- Atypical mycobacterial infections
- Malignancies such as Kaposi’s sarcoma and non-Hodgkin’s lymphoma
- HIV wasting syndrome

In whom would we likely see infectious causes of musculoskeletal pain in PLHIV?
Musculoskeletal Pain in PLHIV

Clinical Manifestations: Non-infectious

Painful Disorders of Bone and Joint
- Arthralgia / Various forms of arthritis
- Rheumatic Disorders
- Chronic low back pain
- Adhesive Capsulitis
- Avascular necrosis / osteonecrosis
- Osteomalacia
- Non-specific aches / pains in bone

Inflammatory Myopathy (Polymyositis)
- Progressive, symmetric, painless weakness most noticeable in proximal trunk and limb muscles
- Diagnosis
  - Elevated CPK levels
  - EMG
  - Biopsy shows muscle fiber necrosis
- Etiology
  - HIV associated: autoimmune response associated with chronic disease process
  - Zidovudine (AZT) myopathy

Pathophysiology of DSP in PLHIV
- Not fully understood, but associated with:
  - Peripheral nerve damage related to HIV infection
  - Neuro-toxic effects of certain anti-retroviral drugs
- Risk factors
  - Advancing age
  - Longer time living with HIV
  - Low CD4 nadir
  - Past exposure to certain anti-retroviral drugs
  - Advanced HIV disease (AIDS)
  - Substance abuse

Distal Sensory Polyneuropathy (DSP)
- The most common neurological comorbidity in PLHIV
- Prevalence: 30-60% in PLHIV
- Bilateral involvement at the extremities
- Clinical presentation:
  - Decreased DTR at the ankle
  - Decreased sensation
  - Usually without significant strength loss
  - No significant range of motion deficits
  - Paresthesias and/or numbness
  - Burning Pain
  - Painful night cramps

Inflammatory Myopathy (Polymyositis)
- When acute:
  - strenuous activity or exercise is contraindicated
  - focus of treatment is on reduction on inflammation via medication and avoidance of strenuous activity or exercise
- Once inflammation is managed and CPK levels decline toward normal, PT can play a role in:
  - functional restoration
  - exercise prescription
  - management of any lingering pain
Physical impairments and functional limitations due to neuropathy are seen clinically and have been reported in the literature:

- **In patients with peripheral neuropathy**
  - Manor et al. (2009)
    - Reduced gait performance
  - Improved standing balance
  - Manor et al. (2008)
    - Increased walking variability and local instability

- **In patients with HIV-related neuropathy**
  - Galantino, Kestrys, et al. (2014)
    - Lower self-reported LE function
  - Lower physical health related QoL
  - Sandoval et al. (2014)
    - Moderate to severe pain, sleep disturbances, and limited ambulation distances

**Bottom Lines**

- Self-reported LE function was significantly lower in HIV+ patients with DSP than in those without DSP.
- In those with DSP, scores reflected ≤50% of normal/full function.
- Physical quality of life (MOS_HIV) significantly lower 15.2 points in HIV+ participants with DSP than those without.

**More severe disability** and worse **pain** in those with LE neuropathy than in those without.
The Effects of HIV-related Lower Extremity Peripheral Neuropathy on Disability is Mediated by Pain Interference and Depression
Kietrys, Parrott, Galantino, Davis, Levin, & O’Brien

Refined Path Model
What does it mean?
LE neuropathy is not directly linked to more severe disability,
BUT
LE neuropathy is directly linked to pain
and
pain is directly linked to depression.
AND both of those are directly linked to severity of disability.

Clinical Relevance
There are no known treatments to cure or reverse the progression of peripheral neuropathy. PLHIV and LE neuropathy have more severe disability and pain than those without LE neuropathy.

In general, treatments for neuropathy are palliative.

However, since the effects of neuropathy on disability are mediated by pain interference and depression, we can:

• Treat pain
• Refer out for treatment of depression

By addressing pain and depression, we may be able to mitigate disability in PLHIV and LE neuropathy.

The Role of the PT in Management of Chronic Pain
A multidisciplinary / multi-modal approach may include:
• Physical Therapy
• Exercise
• TENS
• Manual Therapy
• Patient Education
• Self-Management Programs
• Diet / Nutrition
• Counseling (such as Cognitive Behavioral Therapy)
• Pharmaceuticals
• Topical capsaicin (for neuropathic pain)
• Cannabis
• Surgery (for specific conditions for which surgery is indicated)
• Complementary and alternative therapies

Psychological Informed Physical Therapy

The impact of HIV life stressors, psychiatric diagnoses & mental health on the immune, psychological, endocrine and physical systems

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Impact of Stress

Stress and Illness
• If a person has increased stress, but poor coping mechanisms and social support they may be at increased risk for developing illness
  – Other factors may further increase this risk

Situational Stress: Environmental and Social
• Physical work environment
• Exposure to chemicals
• Rotating shift work
• Poor social support
• Exposure to safety hazards
• Recent life changes
  • Death of family member
  • Pregnancy
  • Change in job

Factors that influence stress

Psychological
• Personality traits (type A)
• Lack of faith, spirituality, religious practices
• Relationship or work conflict
• History

Physical
• Sleep disturbances / deprivation
• Chemical or biological triggers
  • e.g. poor nutrition, smoking
• Events / injury or excessive...
Stigma and Stress

- PLHIV are able to live full lifespans after infection, however, rates of anxiety disorders among this population are elevated compared to national samples.
- Anxiety symptoms and disorders have a negative effect on medication adherence, QOL and other psychological disorders, such as depression.

HIV-related stigma is common among African-American women living with HIV, and those who experience higher levels of stigma are less likely to be virally suppressed.

Add Pain to a Stressed Psycho-emotional State:

- **Physical and Mental Deconditioning**
- **Fear of Injury**
- **Deconditioning/Diuse Syndrome**
- **Fear of Movement**
- **Less Movement**

Potential Sources of Pain

- **“Red Flags”**
  - Non-musculoskeletal (i.e.: visceral pain)
  - May need to refer to other health professionals
- **“Yellow Flags”**
  - Psychosocial components contributing to pain
  - I.e.: Fear, and catastrophizing behavior

Stress Triggers

- Pain
- Physical/psychological/threats to safety, status, or well-being
- Physical/psychological demands exceeding our capabilities or coping resources
- Change, especially unexpected changes
- Inconsistency between our expectation and the actual outcome
- When faced with a stressor or stressors that are beyond our means, the stress response often manifests as feelings of uneasiness, impending doom, rumination, worry, and avoidance of the stressor(s).

The Stress Response and Cortisol

- **Cortisol**: a catabolic hormone
  - Stimulates arousal in the morning, maintains blood glucose levels & suppresses non-vital organ systems so that there is sufficient energy for the neuromuscular system and the brain.
  - Functions as an anti-inflammatory, preventing widespread damage to tissue and nerves.
  - When presented with a threat (physical or psychological), a person’s cortisol levels will sharply increase, fueling the flight or fight response.
- **Signs and Symptoms of Stress-Induced Cortisol Dysfunction**
  - Bone and muscle breakdown
  - Fatigue
  - Depression
  - Pain
  - Fatigue
  - Memory impairment
  - Sodium-potassium dysregulation
  - Impairment of the pupillary light reflex
The Chronic Stress Response: Influences on Pain

- Increase in free radical byproducts & oxidative stress that leads to widespread tissue degeneration & damage of healthy tissues. 
  
  Free radical binding can lead to abnormal growths or cancer.

- Inflammation allows toxins and pathogens to enter the body by widening the gap junctions of the blood-brain barrier and intestinal lining. 
  
  Leads to hypersensitivity to unrecognized proteins, which can lead to autoimmunity.

- Low levels of serotonin are involved in increased pain and depression. Stress & inflammation causes serotonin depletion—due to tryptophan catabolites (TRYCATs)—and degeneration of the hippocampus.

- Chronic stress and pain are associated with depression. 
  
  This is often due to how difficulties in pain management are perceived as a lack of control over one’s situation and body. This instills a feeling of helplessness and hopelessness.
Clinical Implications & Measures  
(Hannibal & Bishop, 2014)

• Pain may initially be caused by a musculoskeletal issue, but stress responses, cortisol dysfunction, and inflammation can increase/prolong pain as well as hinder healing.

• It is important to educate patients about this relationship so that they can better control their emotional stress responses to nonthreatening stimuli, as well as identify and address any stressors.

• The Fear-Avoidance Beliefs Questionnaire and the Pain Catastrophizing Scale can be used in a clinical setting to identify patients with maladaptive responses to pain.

• Therapists can screen for stress using the Perceived Stress Scale, the Impact of Events Scale, and the State-Trait Anxiety Inventory.

• To screen for patients with poor coping skills use the Connor-Davidson Resilience Scale, the Resilience Scale for Adults, and the Brief Resilience Scale.

• Score of 300+: At risk of illness.
• Score of 150-299+: Risk of illness is moderate (reduced by 30% from the above risk).
• Score 150+: Only have a slight risk of illness.

Psychological issues

• Depression
• Manic depression
• Anxiety

• Borderline personality disorder
• Chronic pain
• Serious psychiatric issues

Depression

• Major depressive disorder - interferes with a person’s ability to work, sleep, study, eat, and enjoy once-pleasurable activities.

• Dysthmic disorder - also called dysthymia, is characterized by long-term (two years or longer) but less severe symptoms that may not disable a person but can prevent one from functioning normally or feeling well.

• Psychotic depression - when a severe depressive illness is accompanied by some form of psychosis, such as a break with reality, hallucinations, and delusions.

• Postpartum depression - new mother develops a major depressive episode within one month after delivery. It is estimated that 10 to 15 percent of women experience postpartum depression after giving birth.

• Seasonal affective disorder (SAD) - onset of a depressive illness during the winter months, when there is less natural sunlight. The depression generally lifts during spring and summer.
Side Effects of Depression

- Persistent sad, anxious or "empty" feelings
- Feelings of hopelessness and/or pessimism
- Feelings of guilt, worthlessness and/or hopelessness
- Irritability, restlessness
- Loss of interest in activities or hobbies once pleasurable, including sex
- Fatigue and decreased energy
- Difficulty concentrating, remembering details and making decisions
- Insomnia, early-morning wakefulness, or excessive sleeping
- Overeating, or appetite loss
- Thoughts of suicide, suicide attempts
- Persistent aches or pains, headaches, cramps or digestive problems that do not ease even with treatment

Manic Depression

- Bipolar disorder, (manic-depressive illness), is not as common as major depression or dysthymia.
- Characterized by cycling mood changes—extreme highs to extreme lows
- Severe changes in energy and behavior with changes in mood.
- Periods of highs & lows are called episodes of mania and depression

- 86% prevalence of drug use in the PLHIV with neuropsychiatric comorbidities, with cocaine use being significantly higher in patients with major depressive disorder and bipolar disorder, whereas PCP use was associated with patients with schizophrenia.

Anxiety

- Drug use and panic symptoms is independently associated with poorer outcomes along the depression treatment cascade.
- Current drug users were most likely to have an indication for depression treatment, but were least likely to be receiving treatment or to have remitted depression.
- Disparities were even more starkly evident among patients with co-occurring symptoms of panic disorder compared to those without.

Achieving improvements in the depression treatment cascade will likely require attention to substance use and psychiatric comorbidities.

Borderline Personality Disorder (BPD)

- Main Features
  - pervasive pattern of instability in interpersonal relationships, self-image and emotions
  - impulsiveness in at least two areas that are potentially self-damaging (e.g., spending, sex, substance abuse, reckless driving, binge eating)
  - Frantic efforts to avoid real or imagined abandonment
  - Recurrent suicidal behavior, gestures, or threats, or self-mutilating behavior
  - Affective instability due to a marked reactivity of mood
  - Inappropriate, intense anger or difficulty controlling anger (e.g., frequent displays of temper, constant anger, recurrent physical fights)
  - Transient, stress-related paranoid ideation or severe dissociative symptoms

Other Psychological Issues

Schizophrenia and bipolar disorder

- Shared medications
  - The positive symptoms of schizophrenia can look like the symptoms in about 50% of manic episodes, especially those with psychotic features. (These include delusions of grandeur, hallucinations, disorganized speech, paranoia, etc.)
  - The negative symptoms of schizophrenia can closely resemble the symptoms of a depressive episode (these include apathy, extreme emotional withdrawal, lack of effort, low energy, social isolation, etc.)
  - The two disorders share abnormalities in some of the same neurotransmitter systems.
    - both depressive episode symptoms and the negative symptoms of schizophrenia are at least partially mediated by serotonin.
    - the positive symptoms of schizophrenia and the symptoms of mania are mediated in some way by excesses of dopamine signalling.
    - The atypical antipsychotics approved for both these disorders work on both the serotonin and the dopamine systems

Co-morbidities Impact Depression

Type II Diabetics with distal neuropathy (DDP)

- Patients with type II DM, who exhibited symptoms of DDP were found to have more severe depression (BDI) and higher pain scores on the visual analog scale (VAS). Those with DDP had a worse quality of life score in the physical and environmental domains of the WHO QOL instrument. (Moreira, et al, 2009)

HIV Neuropathy

Despite pharmacologic treatment, moderate-severe chronic pain and elevated depression symptoms are common among HIV-infected patients and frequently co-occur.

Depression and Pain

- Commonly diagnosed in the same patients
- Shared pathophysiology – activated anatomical structures are similar: insular cortex, prefrontal cortex, anterior cingulate cortex, amygdala & hippocampus
- Both activate common neurocircuits: HPA axis, limbic and paralimbic structures, ascending and descending pain tracks
- Activate common neurochemicals: monoamines, cytokines, and neurtrophic factors
- THEORY OF ALLOSTASIS – patients accumulate allostatic load through internal and external stressors, which makes them more susceptible to disease

BREAK THE CYCLE -- TREAT ALL SYMPTOMS OF BOTH DEPRESSION AND PAIN WITH COMBINATION OF PSYCHOTHERAPY, PHYSIOTHERAPY AND PHARMACOTHERAPY.

(Robinson MJ, et al, 2009)

Adequate Discernment During Evaluation and Treatment

- Impact of our plan of care in the face of underlying stress and psychological concerns
- Appreciate underlying depression and other psychological issues at hand when treating complex patients.
- Appreciate side effects from depression
  - Lack of sleep, sleep disturbances – no benefits of growth hormone during sleep to repair what may have been addressed during manual therapy

Pain self-management program combined with antidepressant therapy results in substantial improvement in both depression and pain scores. (Kroenke, et al, 2009)

What Can Physical Therapists Do?

- Physical activity improves the self perception of well being
  (Carta MG, et al, 2008)
- Physical therapy can improve depressive aspects not frequently responsive to drug therapy (Carta MG, et al, 2008)
- A program of dietary control and regular physical activity can significantly reduce body weight and improve metabolic profiles of insulin, triglyceride and insulin-like growth factor-binding protein-3 among obese schizophrenic patients treated with antipsychotic clozapine (Wu MK, et al, 2007)
- Using the transtheoretical model, we can help identify patients ready to adopt healthier lifestyle strategies and help patients with antipsychotic-induced weight gain. (Archie SM, 2007)

Need for Biopsychosocial Intervention

Clinical Intervention

- If a patient views a nonthreatening stimuli as threatening, they must go through reappraisal. If the stimuli is legitimately threatening in some way (i.e.: financial trouble), it is often best to confront the issue directly.
- Address pain that is made worse by poor ergonomics associated with psychological stresses.
- Recognize severe mental illness and refer the patient to a healthcare provider in that field for a multidisciplinary approach to the issue.
  - Biofeedback by a physical therapist paired with psychotherapy has been shown to lead to long-term resolution of neck pain and disability.

(Hammibal & Bishop, 2014)

Fear & Pain

Vignette of Fear (2017) Pain: Clinical Sydrome, 25(6), Fear & Pain
Institute of Medicine. Relieving Pain in America: A Blueprint for Transforming Prevention, Care, Education, and Research, 2011.

"While pain care has grown more sophisticated, the most effective care still is not widely available. Some cases of acute pain can be successfully treated but are not; others could be dealt with promptly, but agonizing delays occur. And most people with severe, persistent pain still do not receive—and often are not offered—systematic relief or the comprehensive, integrated, evidence-based assessment & treatment that pain care clinicians strive to provide."

Since 1999, the number of overdose deaths involving opioids (including prescription opioids and heroin) quadruplicated, with 91 Americans dying every day from an opioid overdose—more than 40 a day from prescription opioids.


- Fatal overdose
- Collapsed veins (intravenous use)
- Infectious diseases
- Higher risk of HIV/AIDS and hepatitis
- Infection of the heart lining and valves
- Pulmonary complications & pneumonia
- Respiratory problems
- Abscesses
- Liver disease
- Low birth weight and developmental delay
- Constipation
- Cellulitis

Principles of Drug Addiction Treatment: A Research-Based Guide

1. Addiction is a complex but treatable disease that affects brain function.
2. No single treatment is appropriate for everyone.
3. Treatment needs to be readily available.
4. Effective treatment attends to multiple needs of the individual, not just his or her drug use.
5. Remaining in treatment for an adequate period of time is critical
6. Behavioral therapies including individual, family, or group counseling are the most commonly used forms of drug use treatment.
7. Medications are an important element of treatment for many patients, especially when combined with counseling and other behavioral therapies.
8. An individual’s treatment and services plans must be assessed continually and modified as necessary to ensure that it meets his or her changing needs.
9. Many drug-addicted individuals also have other mental disorders.
10. Medically assisted detoxification is only the first stage of addiction treatment and by itself does little to change long-term drug use.
11. Treatment does not need to be voluntary to be effective.
12. Drug use during treatment must be monitored continuously, as lapses during to occur.
13. Treatment programs should test for HIV/AIDS, Hepatitis B and C, tuberculosis and other infectious diseases as well as provide targeted risk-reduction counseling, linking patients to treatment as necessary.
Interventions


- A 3-week patient-oriented pain management program involves PT and OT, education to better understand pain, and breathing and meditation exercises to reduce anxiety related to flares.
- 373 patients who attended the program — 1/2 of whom had been taking opioids before enrolling — found significant improvement at 6 months after the program ended, regardless of the amount of opioid medication they were taking prior to treatment.
- However, there are a very small number of these physicians and teams available, with one study estimating that just 2% of people living with chronic pain receive care from these professionals in a typical month.

Cognitive Behavioral Therapy

- 6- session transdiagnostic CBT-based treatment manual for anxiety among PLHIV
- Effective in reducing symptoms of anxiety, depression, anxiety sensitivity, and negative affect,
- Effective in increasing HIV medication adherence as well as QOL


Use of Technology, Telemedicine & Health Coaching

HCV management via TM integrated into an opioid substitution program is a feasible model with excellent virologic effectiveness. Psychosocial and demographic variables can identify subgroups.


Electronic Adherence Monitoring is acceptable and feasible in a rural US setting; technological difficulties, may impede the device’s usefulness for just-in-time adherence interventions.


Changing Behavior through Physical Therapy (CBPT)

- CBPT is a program designed to help reduce the impact of pain and stress on body, mind, and activity level. You will learn ways to increase your activity and return to a normal life by:
  - Taking charge of your recovery
  - Setting activity and walking goals
  - Relaxes and distracting yourself from pain and stress
  - Changing negative thoughts and feelings
  - Balancing rest and activity
  - Creating a personal recovery plan

Promote Seamless Care

Evidence supports the use of community health care workers (CHW) in promoting psychosocial outcomes in PLWH. Future CHW intervention should be expanded in scope to address key psychosocial determinants of HIV/AIDS outcomes such as health literacy.


Behavioral Treatments
The FDA labeling on use of medications is clear – treatment should be used in combination with behavior treatments for addiction

Good treatment is holistic, integrated and multifaceted, taking into account the physical, behavioral and spiritual wellbeing of the individual

**EXERCISE and MIND-BODY INTERVENTIONS ARE KEY**

**Resources**

- American Society of Regional Anesthesia and Pain Medicine
- American Academy of Integrative Pain Management
- American Academy of Pain Medicine
- American Chronic Pain Association
- Partners for Understanding Chronic Pain
- National Center for Complementary and Integrative Health—Pain
- International Pain Foundation
- National Fibromyalgia & Chronic Pain Association
- For Grace
- The Pain Community
- U.S. Pain Foundation

**Literature/References**


Integrating Behavioral Health with Chronic Pain and Addiction Care

Maureen Healy, LCSW, MPH, LMT

2019

**Role of behavioral health providers**

- Biopsychosocial assessment
- Individual Counseling
- Family Counseling
- Group Counseling
- Referrals for additional specialized treatment
- Patient and provider education
- Advocacy
Goals of Treatment

1. Improve functioning and quality of life
   - Manage biopsychosocial consequences of chronic pain
     - Reduce social isolation
     - Improve sleep
     - Manage emotional reactions: grief, anger, sadness
     - Reduce negative coping skills and increase positive coping skills
     - Address practical concerns including changes to finances

2. Manage and reduce experience of chronic pain
   - Improve treatment adherence
   - Improve patient self-management
   - Address underlying psychosocial factors

Behavioral health techniques

- Psychoeducation
  - What is chronic pain
  - What are treatments
  - What can patients do

- Supportive Counseling
  - Normalization
  - Validation
  - Identify Coping Strategies/Reminder of strengths
  - Identify Social Supports
  - Goal setting

- Relaxation training

Behavioral health techniques

- Cognitive behavioral therapy
- Motivational Interviewing
- Mindfulness-based approaches
- Attachment-based approaches
- Support Groups

The Integrative Approach

Why integrate?

**Barriers:** Medical culture; patient and provider expectations; Stigma of chronic pain, mental illness, substance abuse, and poverty

How does this address the opioid crisis?

The Integrative Approach

- Integrative models
  - Multidisciplinary vs. Interdisciplinary
  - Co-located vs. integrated vs. collaborative
  - Group Visits
- Working with behavioral health professionals
  - Qualifications
  - Scope of practice
  - Case consultation
  - Referrals

Family Medicine Comprehensive Pain Management
BronxCare Health System, Bronx, NY

Clinic Characteristics

FQHC in South Bronx
Patient demographics
Most common diagnoses
Comorbidities
Social factors
Family Medicine Comprehensive Pain Management
BronxCare Health System, Bronx, NY

Key Elements of Integrative Clinic

1. Multidisciplinary assessment:
   - MD/DO
   - PMR MD
   - LCSW
2. Collaboration with patient
   - Patient and provider education
3. Access to adjunct therapies
   - PT
   - Acupuncture
   - OMT
   - Behavioral health care
   - Hypnotherapy
4. Teamwork and communication
5. Integrative goals

Next Steps

- Medication Assisted Treatment for Opioid Use Disorder
- Expand use of adjunct therapies for treatment and prevention of chronic pain
- Research to determine model’s impact on patients’ quality of life and opioid use

Integrative Care: what are our options?

- Integrative Care Model
  - Different aspects of integrative care
  - Integration of the Interprofessional Team (general) – MH
  - Clinic example: Bronx-Lebanon Hospital, New York – MH
  - Clinic example: Ponce de Leon Center, Atlanta GA – SP
  - Incorporating integrative pain management techniques into PT practice – SP

Conclusions

- HIV, chronic pain and opioids: the perfect storm has touched down (past and present)
- PT as a key player in the future of the crisis
- PT alone is not the solution
- Integrative and multidisciplinary care is required for optimal impact

Questions?