NEW HAMPSHIRE ACADEMY OF FAMILY PRACTICE

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Mountain View Grand

PAIN AND ADDICTION

NEW APPROACH TO MANAGEMENT STRATEGIES

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- Academy of Integrative Pain Management
- NH Family Physician of the Year 2016
- AAFP Family Physician of the Year 2018

I AM A SPOKESPERSON FOR INVIDIOR

MOST OF THE MEDICATIONS
I WILL MENTION
WILL BE OFF LABEL USE

MY OPINION

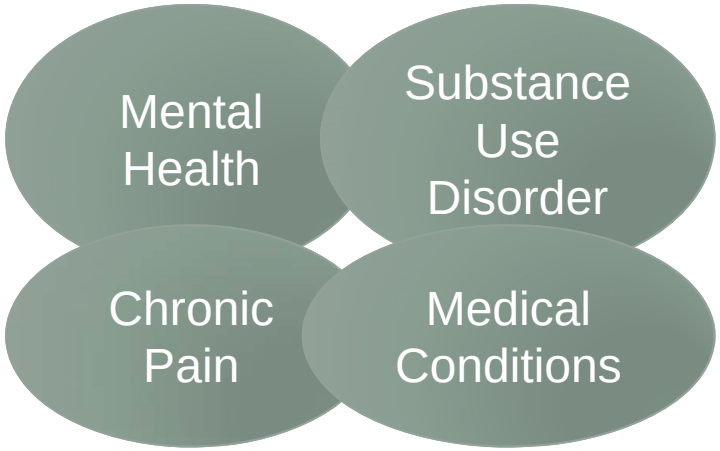
Most if the data is incomplete

More study and more evaluation is needed in all areas of Pain and Addiction

THE CONSEQUENCES OF CO-OCCURRING CONDITIONS

The National Epidemic of
Addiction, Mental Illness, Chronic Pain
And Chronic Medical Problems

The Intersection of 4 Conditions



FOCUS

Pathway of Pain and Addiction

Institute of Medicine

- Relieving Pain In America 1999
  - Pain as the 5th Vital Sign
- Inadequate assessment, diagnosis, management of acute and chronic pain

“I have pain”

- The number one complaint to any healthcare facility or clinician in the US
  - This covers a very wide differential diagnosis from multiple medical causes, trauma, infection and cancer

What is the Pain

- New onset (Acute)
- Acute on Chronic
- Exacerbation of Chronic Pain
- Chronic Pain Uncontrolled

Types of Pain

Nociceptive

Neuropathic

Characteristics of Pain Types

Nociceptive

- Indicates injury or harm
- Acute in onset
- Intense
- Induces reaction and action
- Associated with activation of flight or fight
- May induce LOC

Neuropathic

- No Current Source of harm or injury
- Onset in weeks to months
- Persistent
- Induces fear and unwillingness to move
- Associated with mood changes
- May induce social isolation

Do Your Job

- History
- Physical
- Labs
- Imaging
- Tentative Diagnosis
- Confirmation
- Management
- Consultation

Advances in Medicine and Surgery

- Cancer Survivors
- Trauma Survivors
- Survivors of Medical Conditions
- Onset of Degenerative Diseases in greater portion populations of people that survive and age
- 42 Million over 65

Medical Conditions

- Active Cancer Management
- Post Cancer Treatment
- Rheumatologic Disorders
- Inflammatory and other GI Disorders
- Post Orthopedic Surgery
- Endocrine and Neurological Disorders

Creating Appropriate Expectations

• Pregnancy	• 40 weeks
• Pneumonia	• 2 to 12 weeks
• Soft Tissue Injury	• 7 – 10 days
• Fractures	• 6 – 12 weeks
• Surgery	• 7-30 days
• Trauma	• Weeks to Months
• Complications	• Months to Years

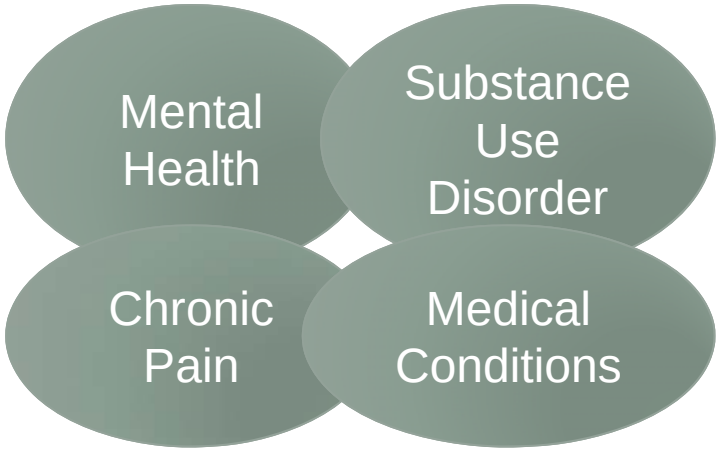
Outliers

- Greater Pain then Expected
- Set Backs
- Additional Diagnosis
- Co-Morbid Conditions
- Prior disease, illness or injury
- Poor response to traditional management
- “Not a Surgical Candidate”
- Failure to get clarification from specialist

Chronic Pain

- Pain 90 days or more
- Estimates of 1/3 of the US population
- 110,000,000
- 390,000
- 50,000

Investigate the 4 Conditions



PREVALENCE OF CHRONIC HEALTH CONDITIONS IN THE GENERAL POPULATION

50%

PREVALENCE OF CHRONIC PAIN IN THE GENERAL POPULATION

30%

PREVALENCE OF SUBSTANCE ABUSE DISORDER IN THE GENERAL POPULATION

Alcohol 6.2% $_{12\text{-}17}$ 2.5%

Opioid 0.007%

MENTAL HEALTH CONDITIONS PREVALENCE IN GENERAL POPULATION

Anxiety/Depression 16-18%

PTSD 7.8%

Prevalence of these disorders

- Any Mental Health 16-18%
- Substance Use Disorder

  AUD 6.2% 12-17 2.5% OUD 0.007% 2014
- Chronic Pain Disorder 30%
- Chronic Medical Conditions
  - Resulting from IVDU
  - Other Conditions

Opioid Risk Tool (ORT) Expand the Use

- Family History of Substance Use Disorder
  - Alcohol, Street or Prescription
- Personal History of Substance Use Disorder
  - Alcohol, Street or Prescription
- Age between 16 – 45 years
- History of Trauma under age 16
  - Sexual abuse, Psychological abuse, Trauma
- Mental Illness
  - ADD, OCD, Bipolar, Schizophrenia
  - Depression

CO-OCCURRING CONDITIONS

The coexistence of both a Mental Health and a Substance Use Disorder SAMHSA

Substance Use Disorder

Substance Use Disorder Deaths

Alcohol

- 88,000 (2015)

Opioids

- 33,091(2015)
- 64,000(2016)

- NSAIDs(16,000)

Substance Use

- Dependence
- Addiction

Addiction (ASAM)

- Addiction is a primary, chronic disease of the brain reward, motivation and related circuitry.
  - Dysfunction in these circuits
- Leads to characteristic biological, psychological, social and spiritual manifestations.
  - This is reflected in an individual pathology
- Pursuit of reward and/or relief by substance use and other behaviors.

Addiction

The development of the desire to manage life by artificially inducing supreme satisfaction or euphoria.

Addiction

Can occurs almost immediately with

Heroin and Cocaine

Opioids within (6 weeks)

In teenagers within days (potential)

Dependence (ASAM 2014)

Physical dependence is a state of adaption that is manifested by a drug class specific withdrawal syndrome that can be produced by abrupt cessation, rapid dose reduction, decreasing blood level of the drug and or the administration of an antagonist.

Denial (ASAM 1992)

An integral part of addiction

Acts as a psychological defense mechanism that disavows the significance of negative life events and decreases awareness that the drug of addiction causes problems.

THE FOUNDATION OF UNDERSTANDING

VIDEO FROM NATIONAL GEOGRAPHIC

The Science of Addiction

Web of Entanglement

Pain	Pleasure
Reduction of Suffering	Enjoyment

Brain Function

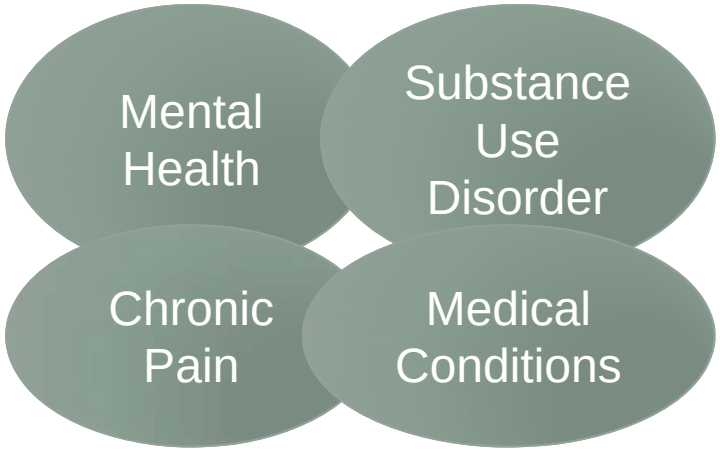
- Hind Brain
- Mid Brain
- Frontal Brain
- Vital Signs
- Pain and Emotions & Pleasure
- Thoughts and Ideas

NEUROPLASTICITY

Neuroplasticity

- Neuroplasticity: The Brains ability to reorganize itself by forming new neuronal connections throughout life.
- Neuroplasticity therefore allows the neurons in the brain to compensate for injury and disease and to adjust their activity in response to new situations or to changes in their environment.

The Co-occurring Conditions



Substance Use Disorder

- 50-66% who suffer PTSD also have a SUD

Chronic Pain

- Small study of 194 VA patients 26.3% PTSD
- Another VA study 15-35% PTSD
- 51% of patients with low back pain also had PTSD

Opioid use in patients with Mood Disorders

- 50% of all opioid prescriptions are being given to patients with a mood disorder
- 18% of the population are receiving 50% of the opioids
- 5% of the general population take opioids
    - David C Holzman Pain Medicine News 10/17

Mood Disorders (NIMH)

Anxiety

- Restless or “on edge”
- Easy fatigued
- Difficult in concentrating
- Irritability
- Muscle tension
- Can not control worry
- Disrupted sleep

Depression

- 2 weeks of the following
- Sad or empty mood
- Hopelessness
- Guilt or helplessness
- Slow down
- Disrupted sleep
- Appetite or weight changes
- Thoughts of death/suicide
- Aches of pains
- Restlessness or irritability

Mood Disorders

PTSD

- Arousal and Re-activity (on edge, angry outbursts, startled, poor sleep)
- Cognition and Mood Symptoms (guilt, negative image, memory issues, loss of interest)
- Avoidance (people, places and things)
- Re-experiencing (Flashbacks)

Bipolar Type 2

- Mixture of episodes of mood swings not as dramatic as a Type 1
- Depression (down in mood, activity and energy)
- Hypomania (up in mood, activity and energy)
- 10 years and at least 3 or more docs before Dx

THE HIJACKING OF THE BRAIN

Percy Sledge

NEUROPLASTICITY

The Cause

The Solution

Microglial Cell Transformation

- They mediate the immune response to injury (trauma, infection or emotional distress)
- They are a form of macrophages and are suppose to remove damaged neurons and infectious particles from the CNS
- Activation or Re-activation and resulting inability to clear the inflammation and settle the activation down postulated to be a source of chronic pain

THE NEUROTRANSMITTERS

Neurotransmitters

Transmitter	Effect
• Endorphins	• Pain Control
• GABA	• Reduces anxiety
• Serotonin	• Mood Management
• Norepinephrine	• Stimulatory (Flight)
• Dopamine	• Focus (antidepressant)
• Epinephrine	• Stimulatory (Flight)
• Anadamide	• Reward Center (Memory, Pleasure, Coordination)
• Endo Cannabinoid System (ECS)	• Multisystem Impact

Neuro-receptors

Receptor

- Mu Opioid Receptor (MOR)
- Kappa Opioid Receptor (KOR)
- Cannabinoid Receptor (CB)

Effect

- Pain Control
- Natural Addiction Control
- Undesirable effects of opioids
- CB1 (reduces GABA Release)
- CB2 (pain control)

Medical Management

Manage medical condition

Investigate the complaint

Create a Plan

Think of alternative meds

Diagnosis and treat mental illness

THE TRIFECTA OF THE ISSUE

Mental Illness (PTSD, BiPolar 2, Anxiety)

Pain

Addiction

COMPLIANCE VS ADHERENCE

Compliance vs Adherence

- Compliance
- Obedience

- Adherence
- Plan

Plan

Acceptance

Action

Adherent

Accomplishment

Achievement with Support

Physician Role in Plan Development

- Has the medical conditions been addressed and have the source of pain been identified
- Have you identified the sources of the patients fears
- Have the Mental Health issues been assessed and needs addressed
- What are the physical therapy needs of the patient
- Are alternative treatments available
- Are the least harmful medications that can be prescribed and available being utilized
- When do you ask for help
- How can you Co-manage the patient (create trust again)

4 Principles of Pain Management

- Behaviors on the part of the patient that need to be changed
- What are the Adaptive Devices that can be used and that already exist or need to be applied
- What are the Traditional Pain Medications that should be prescribed
- What are the Alternative “Pain” Medications that should be prescribed

Plan

Pain and Addiction

- Power
- Fear
- Lust

Recovery

- Peace of Mind
- Hope
- Gratitude

PCP's Need to Know

- Surgeons do not have additional training or experience in the management of acute and perioperative pain.
- Pain management is often delegated to the Hospitalist and or the Physician's Assistant
- Most if not all of us have not been effectively trained and the demand for CME's annual comes from this lack of formal training
- The amount of opioid pain medicines dispensed can be limited post operatively at discharge and re-assessed in 5 – 7 days (Create the Expectation)
- Our training has been in compassion not confrontation

Patient Awareness
(Educational needs of the Patient)

- Safe medications (Technology)
- Doctor Knows Best
- Zero Pain Goal
- Saving Unused Meds
- Safe Storage
- Not my Child

PATIENT MANAGEMENT

Stabilize Underlying Chronic Medical Condition
Diagnose and Treat Underlying Mental Illness
Address potential for Substance Use Disorder
Outline and Initiate a Plan for Management of Pain

Medication

- Alternative “Pain” Medications
  - Mental Health Medications
- Substance Use Disorder Medications

Alternative Pain Medications

- NSAID
- Anti-seizure
- Anti-depressants
- Antibiotics
- Antispasmodics
- Novel
- Topical

- Diclofenac, Indocin
- Carbamazine, Lyrica
- Milnacipran, Duloxetine
- Minocycline, Amantadine
- Baclofen, Cyclobenzaprine
- Lidocain Infusion, Ketamine
- NSAID + others

Non Traditional Medications

- Co-Enzyme Q-10
- Vitamin D
- Turmeric (Curcumin)

MEDICATIONS TO MANAGE MICROGLIAL INFLAMMATION

Amantadine
Doxycycline
VLDN (Very Low Dose Naltrexone)
Glucophage

Mental Health Medications

Diagnosis

- Insomnia
- PTSD
- Depression
- Bipolar
- Anxiety

Medications

- Avoid Benzodiazepines
- Trazodone
- Hydroxyzine
- Propranolol
- Depakote
- Mirtazipine
- TCA, SSRI, SNRI
- Alpha blockers (Clonidine, Tizanidine, Prazosin

SUBSTANCE USE DISORDER

Medically Assisted Treatment

Medication Assisted Treatment

- Methadone
- Suboxone/Subutex (Buprenorphine/Naltrexone)
- Probupine (6 month)
- Sublocade (1 month)
- Naltrexone (Revia)
- Campral (Acamprosate)
- Vivitrol (Naltrexone)
- Antabuse

Mechanism of Action

- Revia (Naltrexone)
- Campral (Acamprosate)
- Buprenorphine

- Opioid Antagonist
- GABA and glutamate pathways
- Partial mu and kappa agonist, antagonist at the delta

MAT

Medication	Benefit
Methadone	Opiates
Suboxone/Subutex	Opiates
Naltrexone	Opiates and Alcohol
Vivitrol	Opiates and Alcohol
Campral	Opiates and Alcohol
Antabuse	Alcohol
Topamax	Cocaine
Baclofen	Alcohol

MAT
Benefits

- Increases Patient Retention in Treatment
- 50% Increase in Sobriety 12 months
- Decreases Street Drug Use/Manages Pain
- Decreases Infectious Disease Transmission
- Decreases Criminal Behavior
- Harm Reduction

CONCLUSION

Observation

- What are the genetic predisposition for Pain, SUD and Mental Health to co-exist in patients?
- How can we utilize the data that children under the age of 16 are at greater risk to develop Chronic Pain and SUD when a victim of physical, emotional or sexual abuse?
- What can we do with the data that shows a 18% of patients with affective disorders receive 50% of opiates?

DO COMMON THINGS UNCOMMONLY WELL

Healers

- Compassion and Caring
- Inclusiveness and Kindness

THANK YOU

DISCUSSION

REVIEW

MAT

Medication

- Methadone
- Suboxone/Subutex
- Injectable buprenorphine
  - Probuphine (6 Months)
  - Sublocade (1 Month)

Benefit

- Long history of benefit
- Available at PCP office and can be prescribed for weeks to months
- Compliance & Diversion

MAT

Medication	Benefit
• Naltrexone • Vivitrol	• Prevents the “high” of both alcohol and opiates • Does not prevent craving
• Campral	• Reduce relapse compared to placebo • Increases the rate of sobriety by 50% at 12 months (27 v 13)

MAT

Medication

- Antabuse

Benefit

- Deterrent as a negative re-enforcer

MAT

Medication	Benefit
• Topamax • Baclofen • Carbamazine • Depakote	• Alcohol Relapse Prevention • Cocaine Relapse Prevention

Narcan

- Evzio (Naloxone) 2011 5,000
  - ER presentation of < 5
- Pure Opioid Antagonist
- Reverses the effects of all opioids (puts them in withdrawal)
- Last 30 – 81 minutes
- Naloxone
  - Injection
  - Nasal Spray

Current Patients

Chronic Medical Problems

Chronic Pain

Substance Use Disorder

Mental Heath

Chronic Pain

- Create a Plan to set functional assessments
- Create Realistic Goals
- Identify Treatment choices not previously utilized
- Create a Pathway to reduce Fear of Movement
- Review Interventions done in the past to re-introduce them when appropriate
- Introduce medications previously not considered
- Once these processes are in place consider reduction of opiates

Substance Use Disorder

- Is this a primary problem or the outcome of chronic pain
- Has a plan been created to address the Trifecta of SUD, Pain and Mental Health needs
- Recovery is a group or team process
- MAT can be the foundation of success (buprenorphine et al)

CLOSING THOUGHTS

Consequences

There is nothing you must be
And there is nothing you must do
There is nothing you must have
And there is nothing you must know
There is nothing you must become

However

It helps to understand

That fire burns

And when it rains

The earth gets wet

Whatever

There are CONSEQUNECES

NOBODY IS EXEMPT…….

Vietnam Experience

- Opium, Heroin and Marijuana were available, cheap and used to Manage what was soon to be known as PTSD
- 50% of the Vietnam Service Man used these drugs
- 50% of them became addicted
- 88% of the addicted had a “natural recovery”
- 12 % needed and received Rehab because of relapse
- 2% were still struggling with addiction after 5 years

THE 12 STEPS OF AA

12 Steps

- Admit powerlessness and lives have become unmanageable
- Power greater than ourselves can restore sanity
- Turn our will and our lives over to God (as we understand Him)
- Fearless Moral Inventory
- Admit to God, ourselves and others the exact nature of our wrongs
- Have God remove all of these defects

12 Steps

- Humbly ask Him to remove our shortcomings
- Make amends
- Direct amends unless to do so would be harmful
- Continue to make a personal inventory and when wrong promptly admit
- Sought through prayer and meditation to improve our contact with God
- With this awakening carry the message to others