

# **THE COMPLEX RELATIONSHIPS BETWEEN PTSD, PAIN, AND OPIOID/ALCOHOL/CANNABIS ABUSE**

Brian L. Meyer, Ph.D.  
Interim Associate Chief  
Mental Health Clinical Services  
McGuire VA Medical Center  
Richmond, VA

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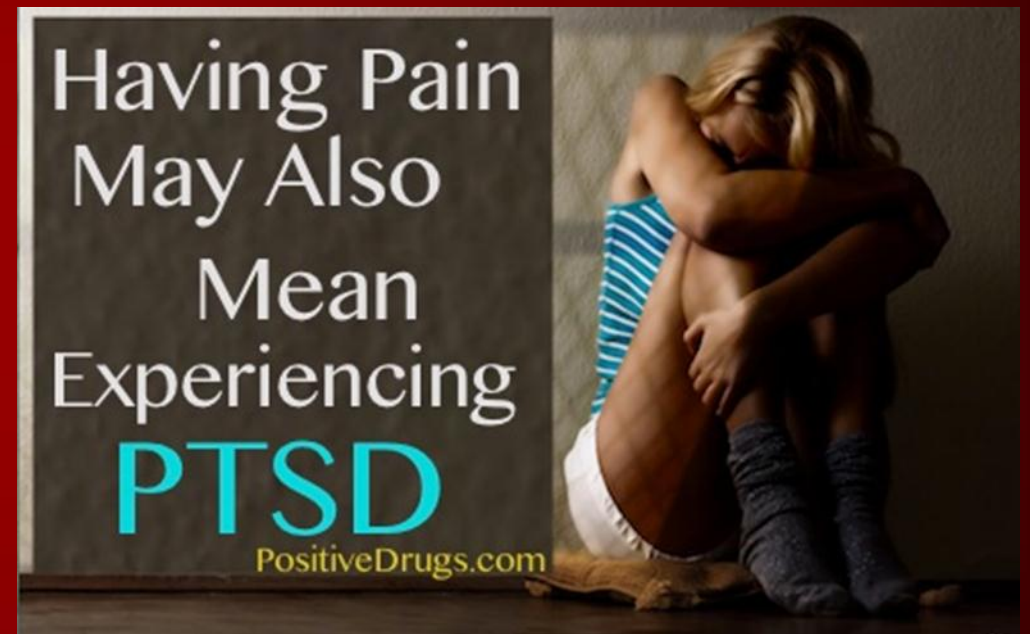
# **DISCLAIMER**

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# **CO-OCCURRING PTSD AND PAIN**

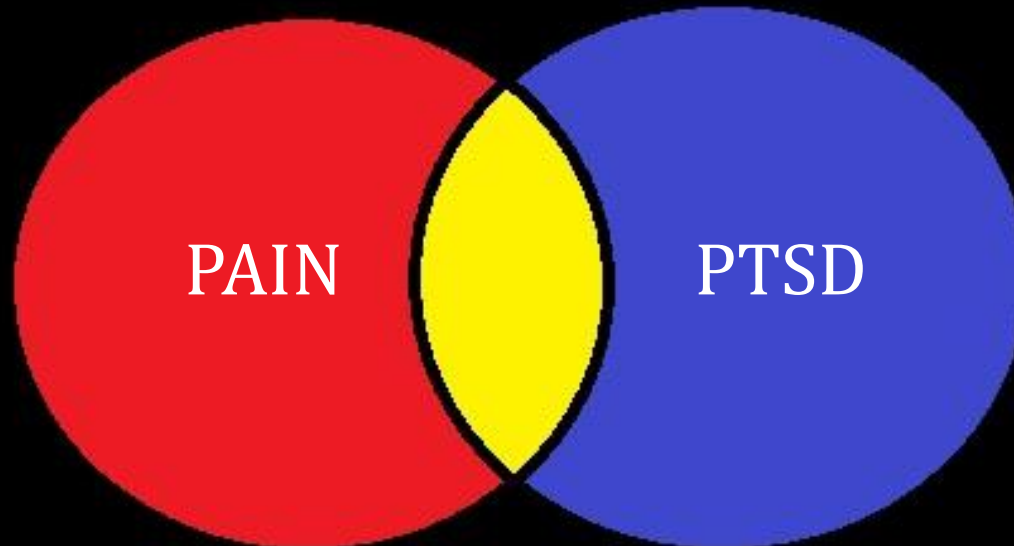
# PAIN AND TRAUMA

- May occur from the same event (accident, being shot, IED, etc.)
- May occur from different events
- Trauma may exacerbate previous pain
- Pain may trigger traumatic re-experiencing
- Experiencing pain after a trauma is a risk factor for PTSD (Norman et al., 2008)



# PTSD IS ASSOCIATED WITH CHRONIC PAIN

- Multiple studies show a strong relationship between PTSD and chronic pain (e.g., Asmundson et al., 2002; Cohen et al., 2004; Otis et al., 2003; Sharp & Harvey, 2001; Shepherd et al., 2001; Villanoe et al., 2007)



# PTSD AND PAIN



# EXPERIENCING PTSD AND/OR PAIN

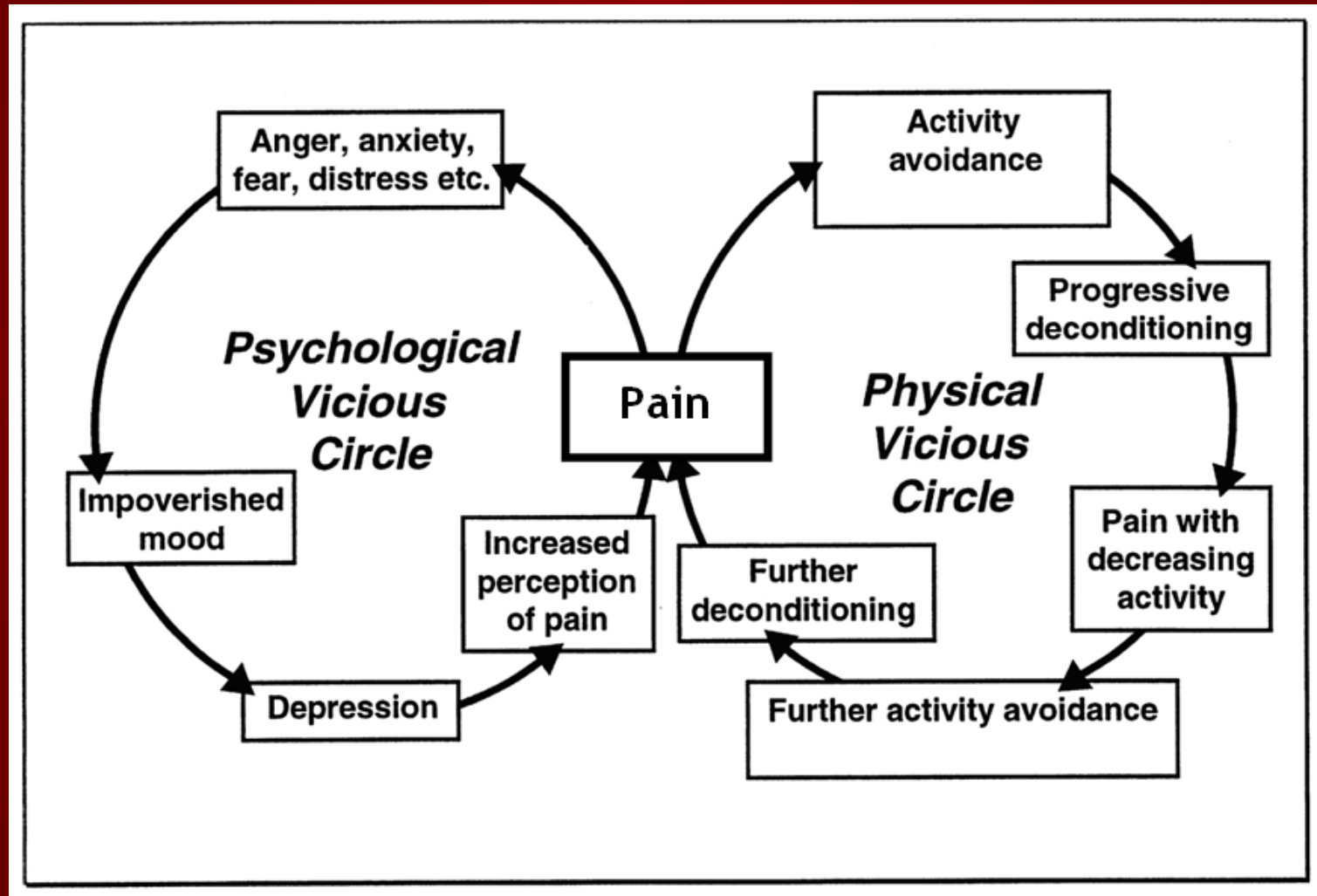


# THE PAIN CYCLE





# PAIN CYCLES



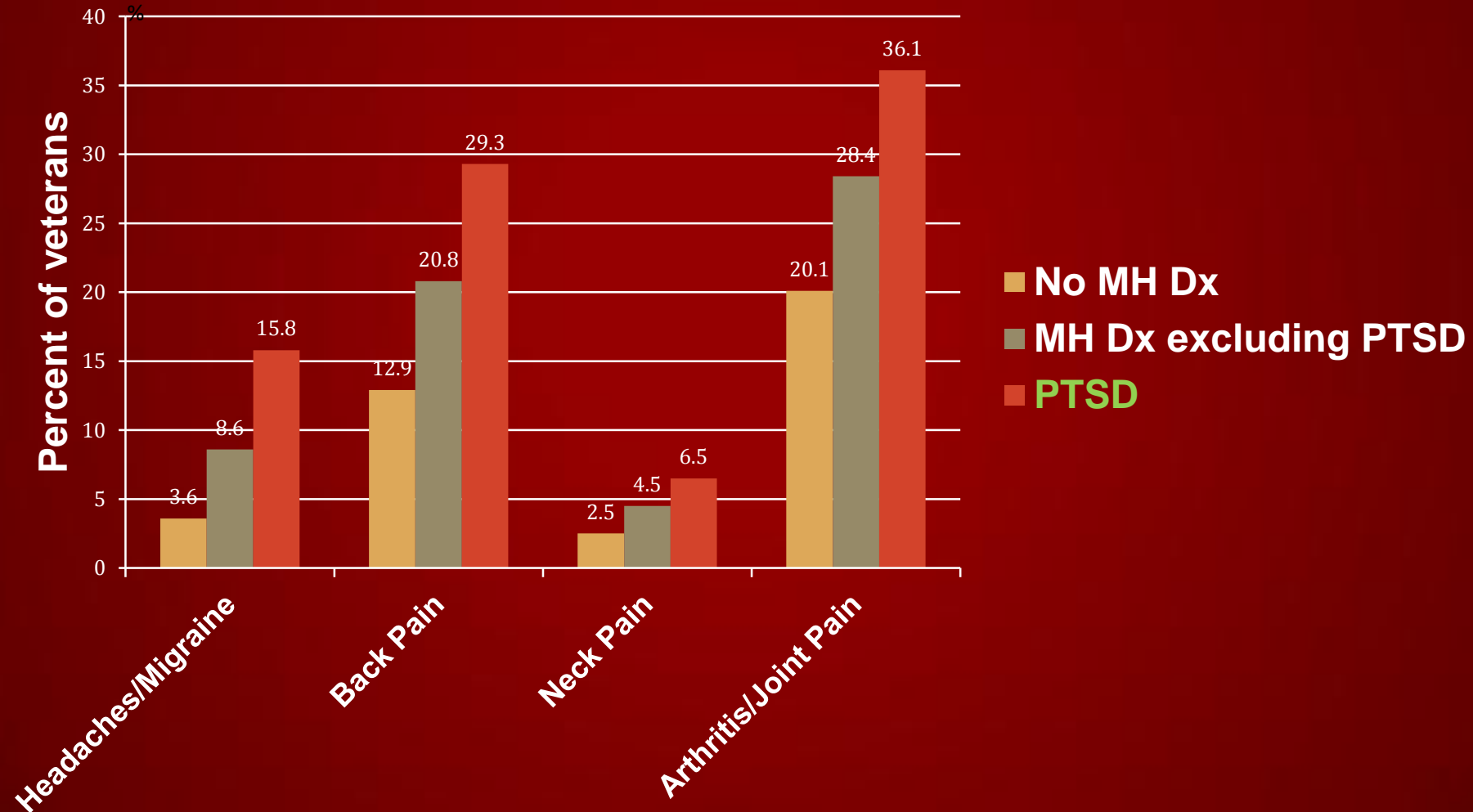
# FREQUENCY OF DIAGNOSES AMONG OEF/OIF/OND VETERANS IN THE VA

Diagnosis (Broad ICD-9 Categories)	Frequency	Percent
Infectious and Parasitic Diseases (001-139)	144,167	16.0
Malignant Neoplasms (140-209)	13,016	1.4
Benign Neoplasms (210-239)	64,424	7.2
Diseases of Endocrine/Nutritional/ Metabolic Systems (240-279)	302,719	33.6
Diseases of Blood and Blood Forming Organs (280-289)	36,899	4.1
<b>Mental Disorders (290-319)</b>	<b>486,015</b>	<b>54.0</b>
Diseases of Nervous System/ Sense Organs (320-389)	415,543	46.2
Diseases of Circulatory System (390-459)	198,140	22.0
Disease of Respiratory System (460-519)	241,229	26.8
Disease of Digestive System (520-579)	326,338	36.3
Diseases of Genitourinary System (580-629)	142,687	15.9
Diseases of Skin (680-709)	199,803	22.2
<b>Diseases of Musculoskeletal System/Connective System (710-739)</b>	<b>519,721</b>	<b>57.8</b>
Symptoms, Signs and Ill Defined Conditions (780-799)	478,267	53.2
Injury/Poisonings (800-999)	267,407	29.7

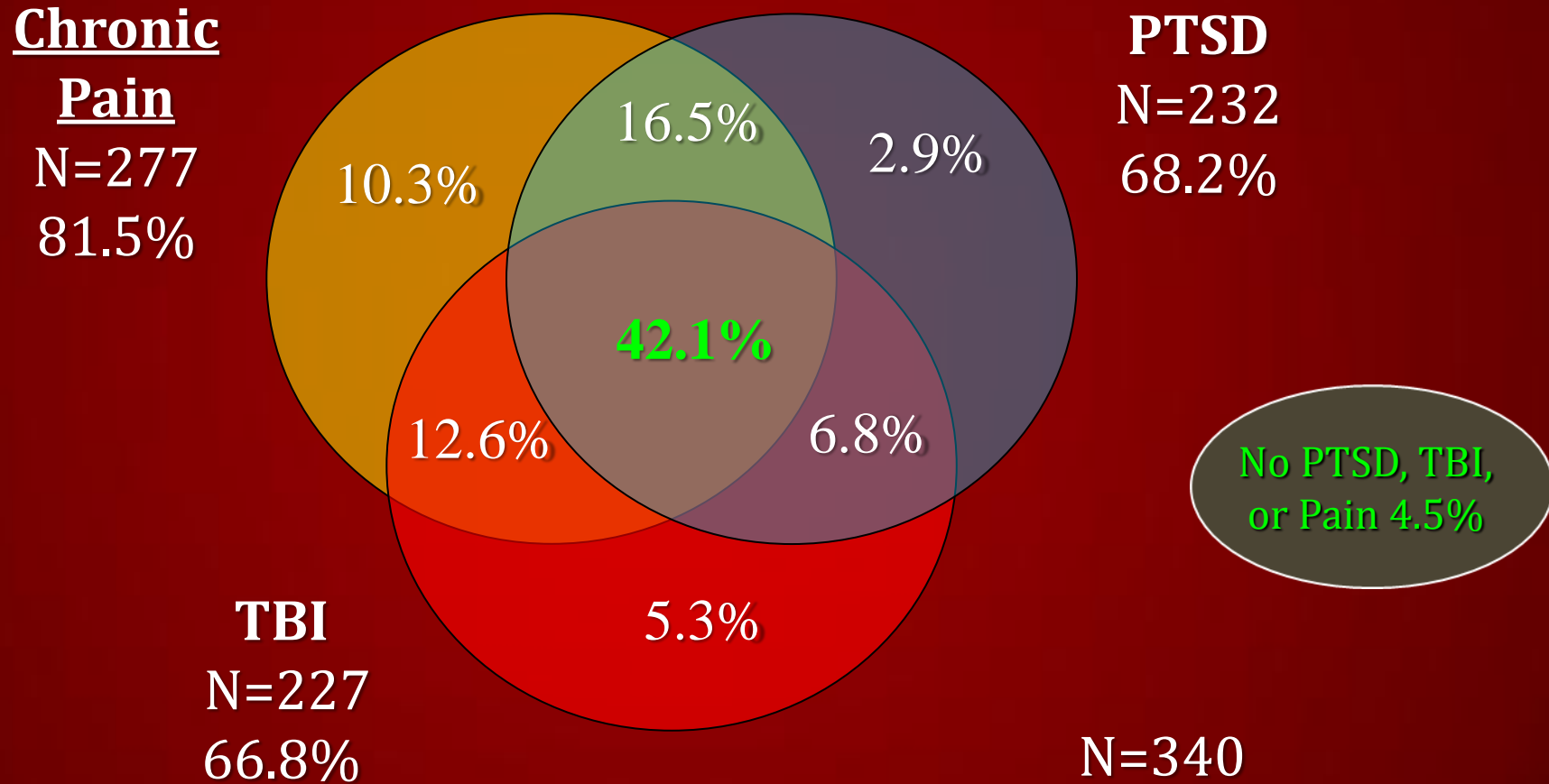
N = 899,752

Cumulative from 1st Quarter FY 2002 through 1st Quarter FY 2013

# OEF/OIF VETERANS WITH DIFFERENT KINDS OF PAIN BY DIAGNOSIS



# PTSD, CHRONIC PAIN, AND TBI AMONG OEF/OIF VETERANS AT A VA POLYTRAUMA NETWORK SITE



# CO-MORBIDITY OF PTSD AND PAIN

- Civilians with PTSD are significantly more likely to have pain (Phifer et al., 2011)
  - Prevalence of pain was correlated with PTSD symptom severity
- 66%- 80% of treatment-seeking Vietnam Veterans with PTSD report chronic pain (Beckham, 1997; Shipherd, 2007)



# CO-MORBIDITY OF PTSD AND PAIN

- **PTSD Samples:**

- 66-80% of individuals diagnosed with PTSD experience chronic pain (Beckham et al., 1997; Jakupcak, Osborne, Michael, Cook, Albrizio, & McFall, 2006; Shipherd et al., 2007)

- **Pain Samples:**

- 34% - 50% of civilians with chronic pain are diagnosed with PTSD (Geisser et al., 1996; Asmundson, et al., 1998)

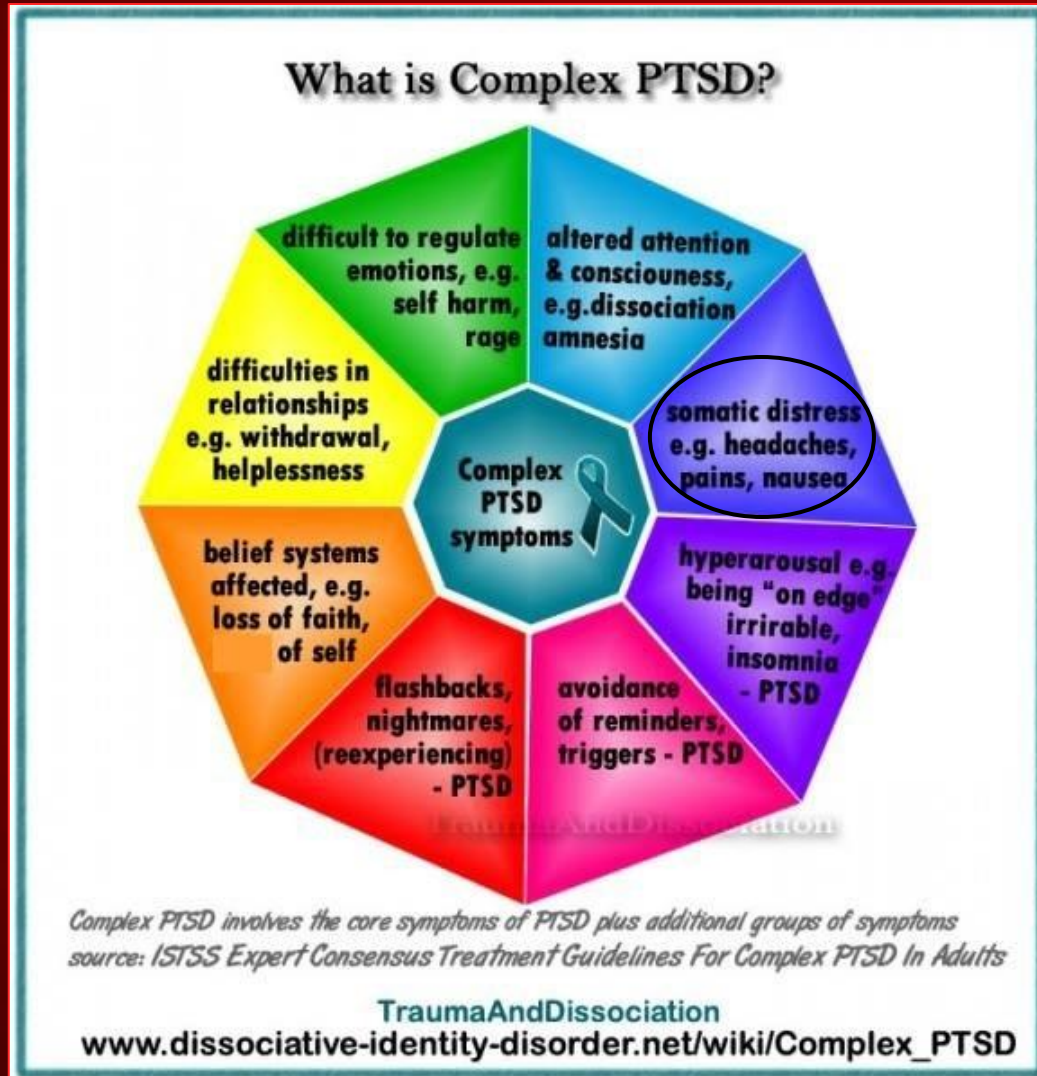


# CO-MORBIDITY OF PTSD AND PAIN

- Study of 194 veterans in a VA pain management program (Alschuler & Otis 2012)
  - 47% of the sample endorsed symptoms consistent with PTSD
  - Veterans with both pain and PTSD endorsed significantly higher levels of maladaptive coping strategies (i.e., greater catastrophizing and emotional impact on pain) compared to veterans with chronic pain alone
  - Veterans with both pain and PTSD also endorsed maladaptive beliefs about pain (i.e., less control over pain) compared to veterans with chronic pain alone



# COMPLEX PTSD AND PAIN



## Complex PTSD (DESNOS) criteria:

### 6. Somatic and/or medical conditions

- Involving all major body systems
- **Chronic pain**



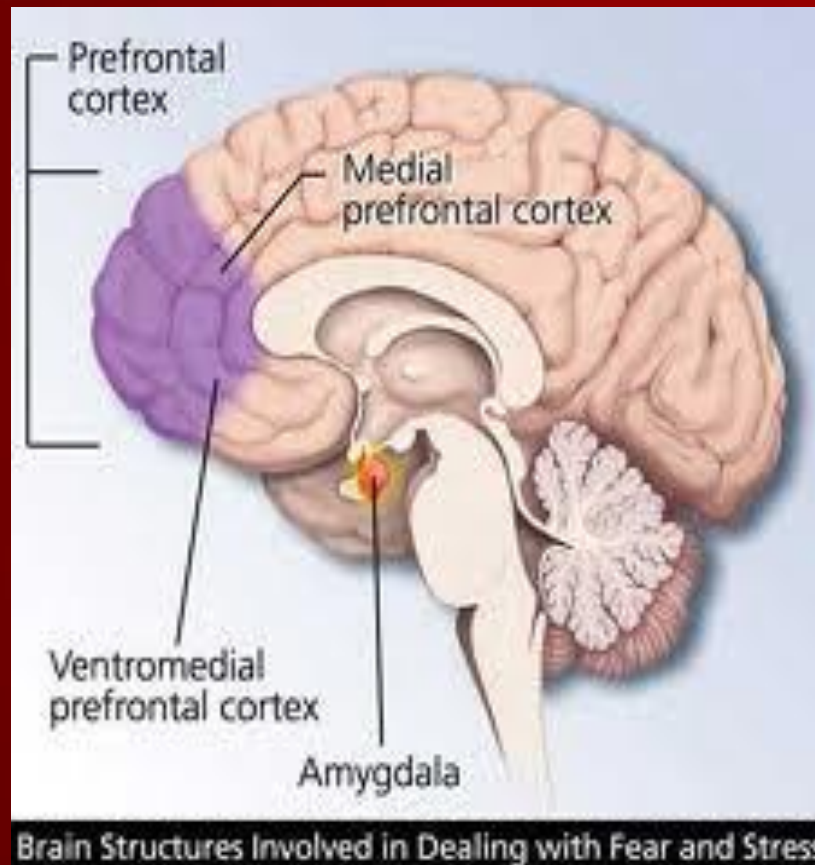
# HOW ARE PTSD AND PAIN LINKED?

- PTSD and pain may stem from the same event (e.g., domestic violence)
- There may be a shared underlying vulnerability: Anxiety sensitivity/distress intolerance
- PTSD alters the HPA axis, resulting in increased inflammation
- PTSD alters the endogenous opioid system
- PTSD decreases frontal lobe inhibition of exaggerated responses to pain and fear triggers
- Mutual Maintenance: pain and anxiety maintain each other

# PAIN AND PTSD: SHARED NEUROANATOMY AND NEUROBIOLOGY

- Circuits that mediate affective distress and physiological threat converge in the nervous system, particularly through the amygdala
- Neuropeptide Y modulates both stress and pain
  - Reduced levels of NPY may intensify stress and pain
- The neuroactive steroids allopregnanolone and pregnanolone (ALLO) have analgesic effects
  - Low levels of ALLO are associated with PTSD re-experiencing symptoms and negative mood

# SHARED BRAIN REGIONS FOR PAIN AND FEAR RESPONSE



In patients with PTSD, poor pre-frontal cortical inhibition leads to dysregulated amygdala and limbic systems, which can lead to exaggerated responses to both fear and pain stimuli.

# CHRONIC PAIN AND PTSD: MUTUAL MAINTENANCE



# **CO-OCCURRING PTSD AND SUBSTANCE ABUSE**

# PTSD AND SUBSTANCE ABUSE

**PTSD**



**SUBSTANCE  
ABUSE**



# CO-OCCURRENCE OF PTSD AND SUBSTANCE ABUSE

**Co-occurring disorders are the rule rather than the exception.**

SAMHSA, 2002

Figure 1

## COMORBID DISORDERS ARE THE RULE, RATHER THAN THE EXCEPTION FOR PTSD

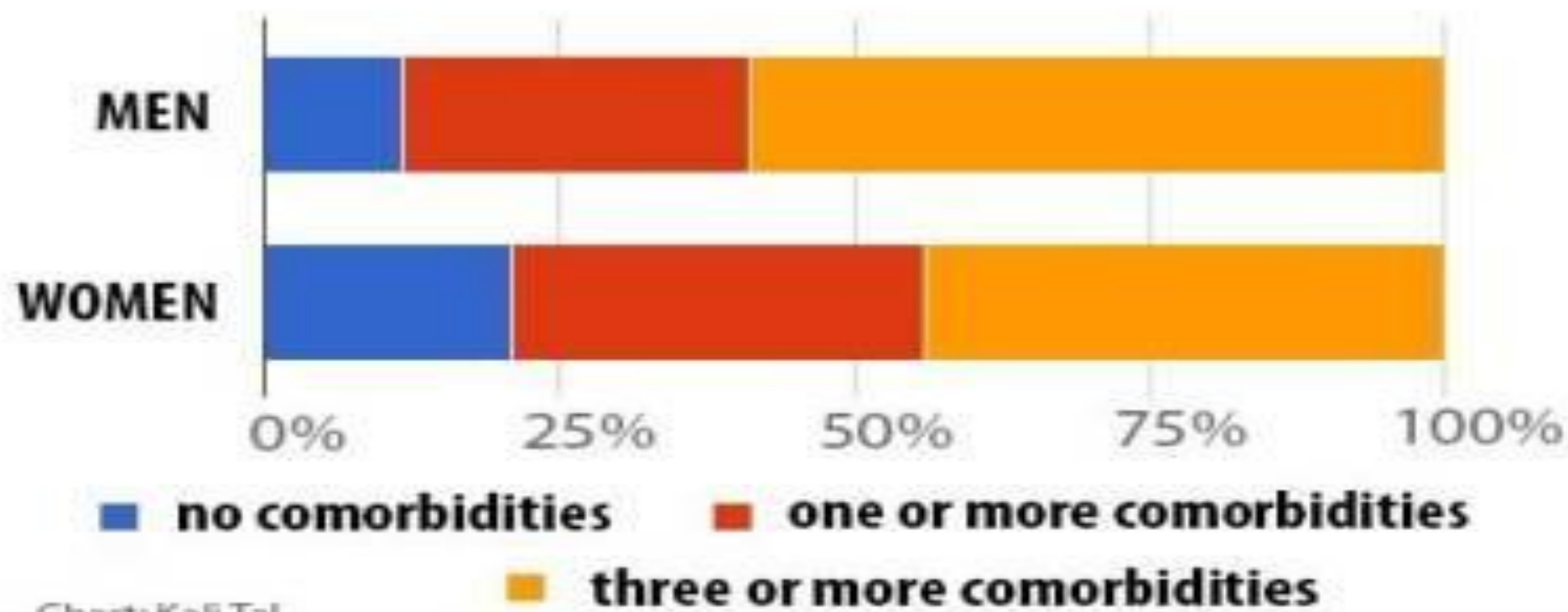


Chart: Kali Tal



# NATIONAL COMORBIDITY SURVEY

Among civilians with PTSD:

	Male	Female
Alcohol Abuse/ Dependence	51.9%	27.9%
Drug Abuse/ Dependence	34.5%	26.9%

# CO-OCCURRENCE OF PTSD AND SUBSTANCE ABUSE

- PTSD and substance abuse co-occur at a high rate
  - 20-40% of people with PTSD also have SUDs (SAMHSA, 2007)
  - 40-60% of people with SUDs have PTSD
- Substance use disorders are 3-4 times more prevalent in people with PTSD than those without PTSD (Khantzian & Albanese, 2008)
- The presence of either disorder alone increases the risk for the development of the other
- PTSD increases the risk of substance relapse (Norman et al., 2007)
- The combination results in poorer treatment outcomes (Ouimette et al., 2003; Sonne et al., 2003)

# PTSD AND SUBSTANCE ABUSE

## PTSD, ALCOHOL AND DRUG ABUSE

While alcohol and drug use by active members of the military has gone down over the past 30 years, studies suggest that it may be rising among veterans with PTSD.



Up To  
**80%**  
of Vietnam  
veterans  
seeking PTSD  
treatment  
abuse alcohol.



**4x**

Adolescents with PTSD are 4 times more likely than adolescents without PTSD to experience alcohol abuse or dependence.



**6x**

6 times more likely to experience marijuana abuse or dependence.



**9x**

And 9 times more likely to experience hard drug abuse or dependence.

# ALCOHOL AND SUBSTANCE ABUSE IN VIETNAM VETERANS WITH PTSD

	Current	Lifetime
<b>Alcohol Abuse/ Dependence</b>	<b>22%</b>	<b>75%</b>
<b>Drug Abuse/ Dependence</b>	<b>6%</b>	<b>23%</b>

Kulka et al., NVVRS, 1988

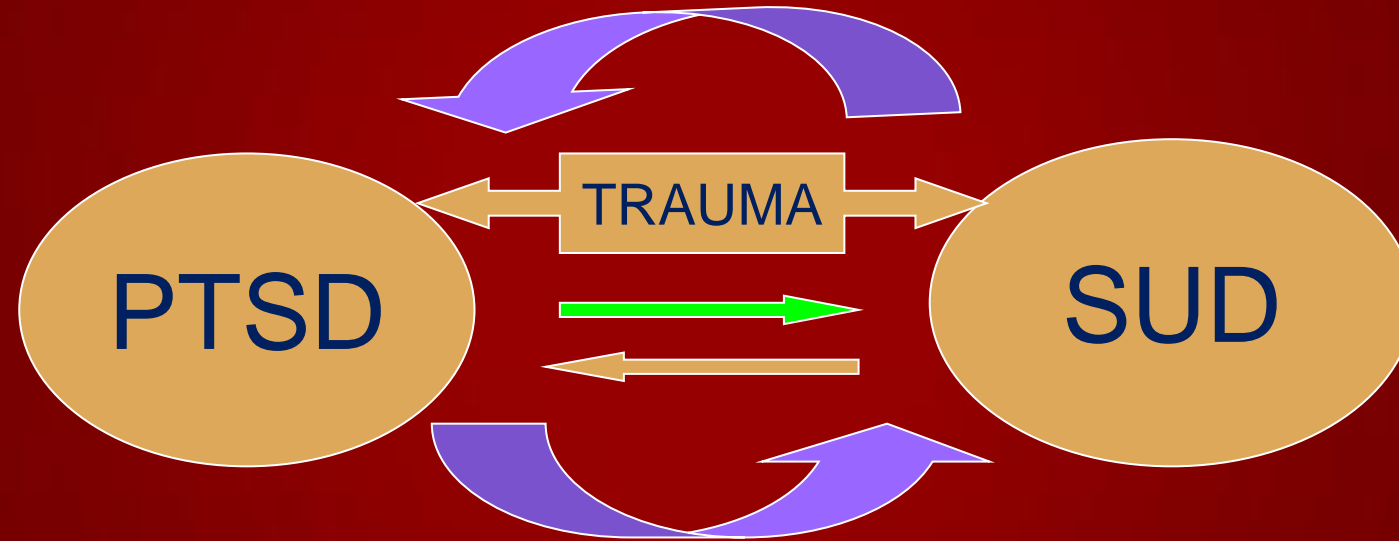
# PTSD AND SUD IN OIF/OEF VETERANS

Veterans with PTSD also:

- Binge on **alcohol** – 50% (2 X community rate)
- Smoke tobacco – 50% (2.5 X community rate)
- Abuse **opioids** – 9% (3 X community rate)
- Abuse other drugs – inhalants, sedatives, and **marijuana**



# PATHWAYS BETWEEN TRAUMA-RELATED DISORDERS AND SUBSTANCE USE



# PTSD AND OPIOID DEPENDENCE

- 42 % of 459 patients in opioid treatment had PTSD (Mills et al., 2005)
  - PTSD patients had poorer occupational, physical and mental health functioning outcomes
  - PTSD patients used more opioids and had more overdoses, relapses, and readmissions
- 14-41% of patients on methadone maintenance treatment have PTSD (Barry et al., 2011)

# PTSD AND ALCOHOL ABUSE

- Among people with PTSD, 52% of men and 28% of women develop an Alcohol Use Disorder (Najavits, 2007)
- PTSD increases the risk of alcohol relapse (Heffner et al., 2011)



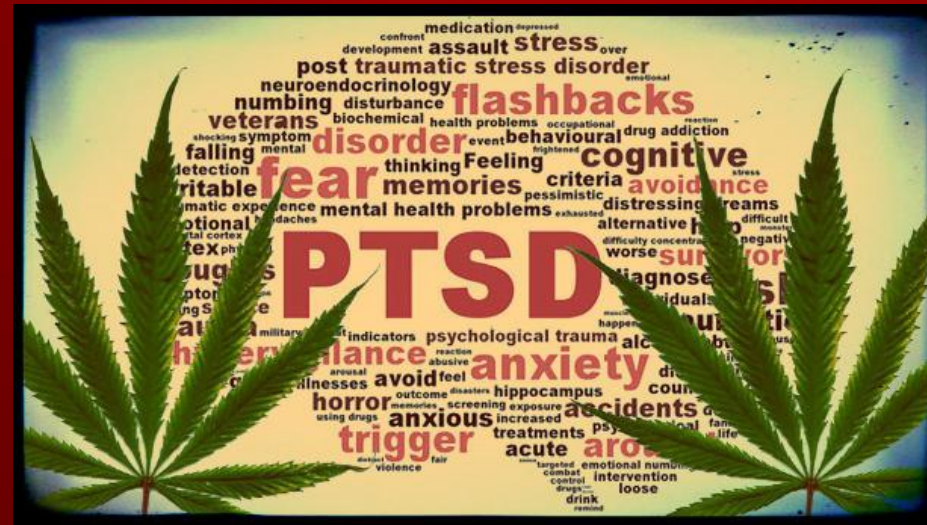
# PTSD AND MARIJUANA

- Many people with PTSD claim that marijuana is the only thing that helps their PTSD
  - Some Veterans are lobbying Congress to allow the VA to prescribe medical marijuana
- There is no research evidence for this claim
  - The first studies are currently being conducted



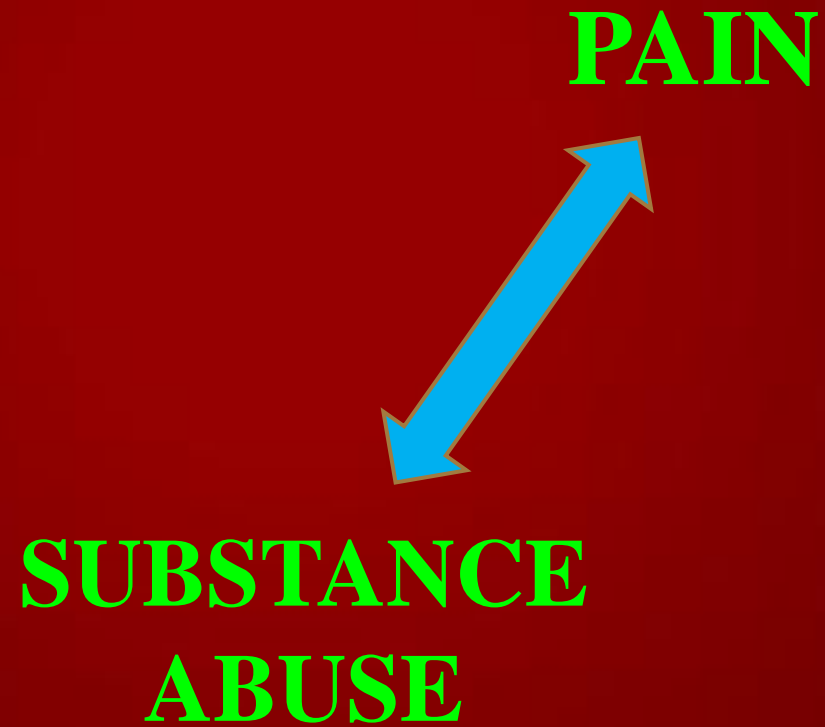
"Cannabis saved me when PTSD was just overwhelming me."

Sean Azzariti, 32 year old Iraq veteran became the first person to buy legal marijuana in Colorado when recreational stores opened Jan 1st



# **CO-OCCURRING PAIN AND SUBSTANCE ABUSE**

# PAIN AND SUBSTANCE ABUSE



# SYSTEMIC RESPONSE TO PAIN



# PREVALENCE OF ADDICTIVE DISORDERS AMONG PAIN PATIENTS

- General Population: 3-18%
- Chronic Pain Population: 3.2-24%
- Hospitalized Population: up to 26%
- Cancer-related Population: up to 27% or more
- **Trauma Population: 40-62%**



# CHRONIC PAIN AND SUBSTANCE ABUSE

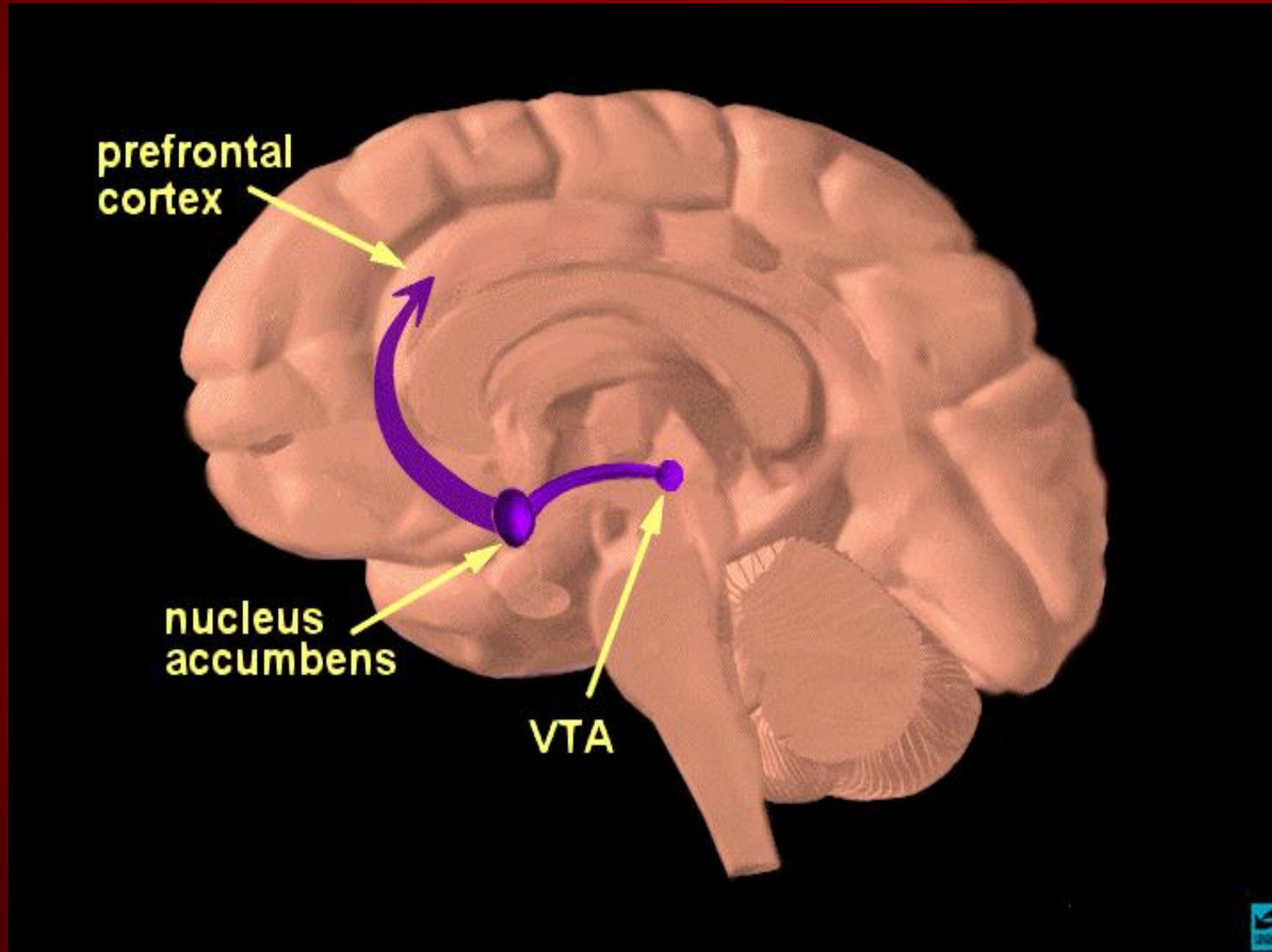
- Patients in substance abuse treatment show higher levels of pain than the general population (Sheu et al., 2008; Mertens et al., 2003)
- Patients in pain treatment have higher levels of substance abuse than the general population (Atkinson et al, 1991)
- Among methadone maintenance patients, 61-80% have moderate to severe pain (Barry et al., 2009; Jamison, 2000; Rosenblum et al., 2003)
- Pain is often used as a justification for substance abuse (Jarcho et al., 2012; Joy et al., 1999)
- Therefore, if we treat pain, we *might* decrease substance abuse

# ADDICTION AND CHRONIC PAIN

Addiction increases the risk for chronic pain through several mechanisms (Bruinjeel et al., 2004)

- Development of Tolerance and Physical Dependence
- Anxiety and Affective Disorders
- Sleep Disorders
- Sympathetic Arousal
- Increased stress with HPA axis activation
- **Increased risk for trauma**

# NEURAL CIRCUITRY OF REWARD SYSTEM



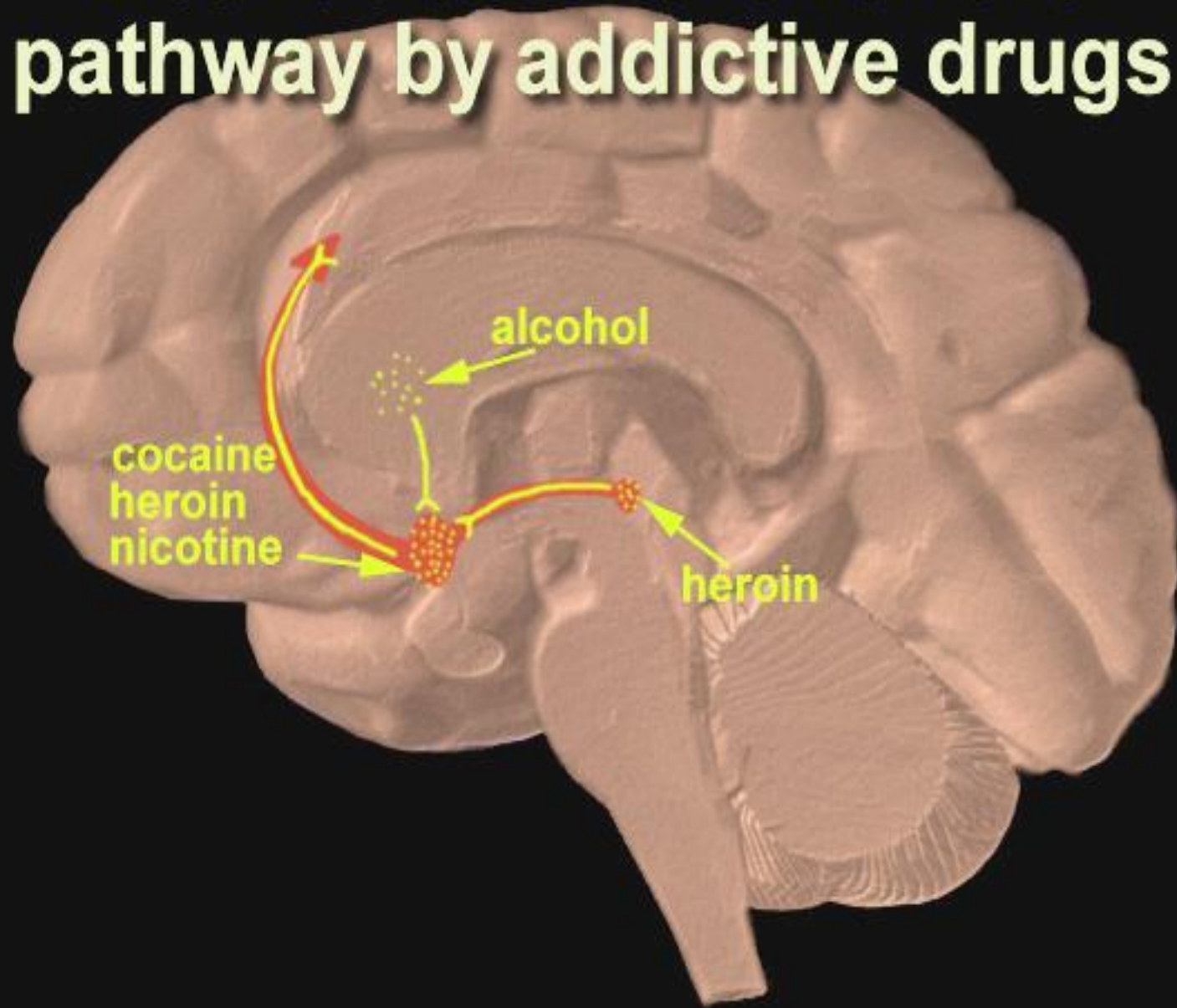
- Present in all animals
- Produces pleasure for behaviors needed for survival:
  - Eating
  - Drinking
  - Sex
  - Nurturing



# ALCOHOL AND PAIN

- 73% of patients seeking substance abuse treatment who identify alcohol as their drug of choice report moderate to severe pain (Larson et al., 2007)
- 43% of older problem drinkers report moderate to severe pain in the past month, compared to 30% of non-problem drinkers (Brennan et al., 2005)
- 25% of treatment-seeking pain patients report heavy drinking (Kim et al., 2013; Lawton & Simpson, 2009)
- Men endorse drinking to cope with pain (Brennan et al., 2005; Riley et al., 2002)
- Excessive drinking predicts chronic pain severity (Castillo et al., 2006)

# Activation of the reward pathway by addictive drugs



# ALCOHOL ABUSE ALSO INCREASES PAIN

- Alcohol accounts for 1/3 of all pancreatitis and 60-90% of chronic pancreatitis (Dufour & Adamson, 2003)
- 25-60% of people with Alcohol Use Disorder develop alcohol-related neuropathy caused by damage to motor, sensory, and autonomic nerves (Chopra & Tiwari, 2013)
- Heavy alcohol use is also associated with
  - Liver pain
  - Arthritis (He et al., 2008) and Osteoarthritis (Cheng et al., 2000)
  - Knee pain (Sa et al., 2008)
  - Lower back pain (Demyttenaere et al., 2007)



# EARLY OPIOD ADDICTION

- **16th century** - the first reports about addiction to opium throughout Europe, India and China.
- **Early 1800s** - the chemist Seturner was able to isolate and identify the active ingredient in opium, which he named Morphine after the Greek god Morpheus. This was touted as the solution to Opium Addiction.
- **Throughout the early and mid-1800s** - morphine was used during surgical procedures as a general anesthetic and as relief for chronic pain. By the end of the century, there were as many people addicted to morphine as there were to opium.

# THE GROWTH OF OPIOID USE 1986-2010

## THE PERFECT STORM:

- In 1995, the American Pain Society designated pain as the “fifth vital sign”
- Pharmaceutical companies developed newer opioids that they advertised as less risky
- Minimal training of health care providers in pain and addiction
- Pharm companies also gave money for provider education

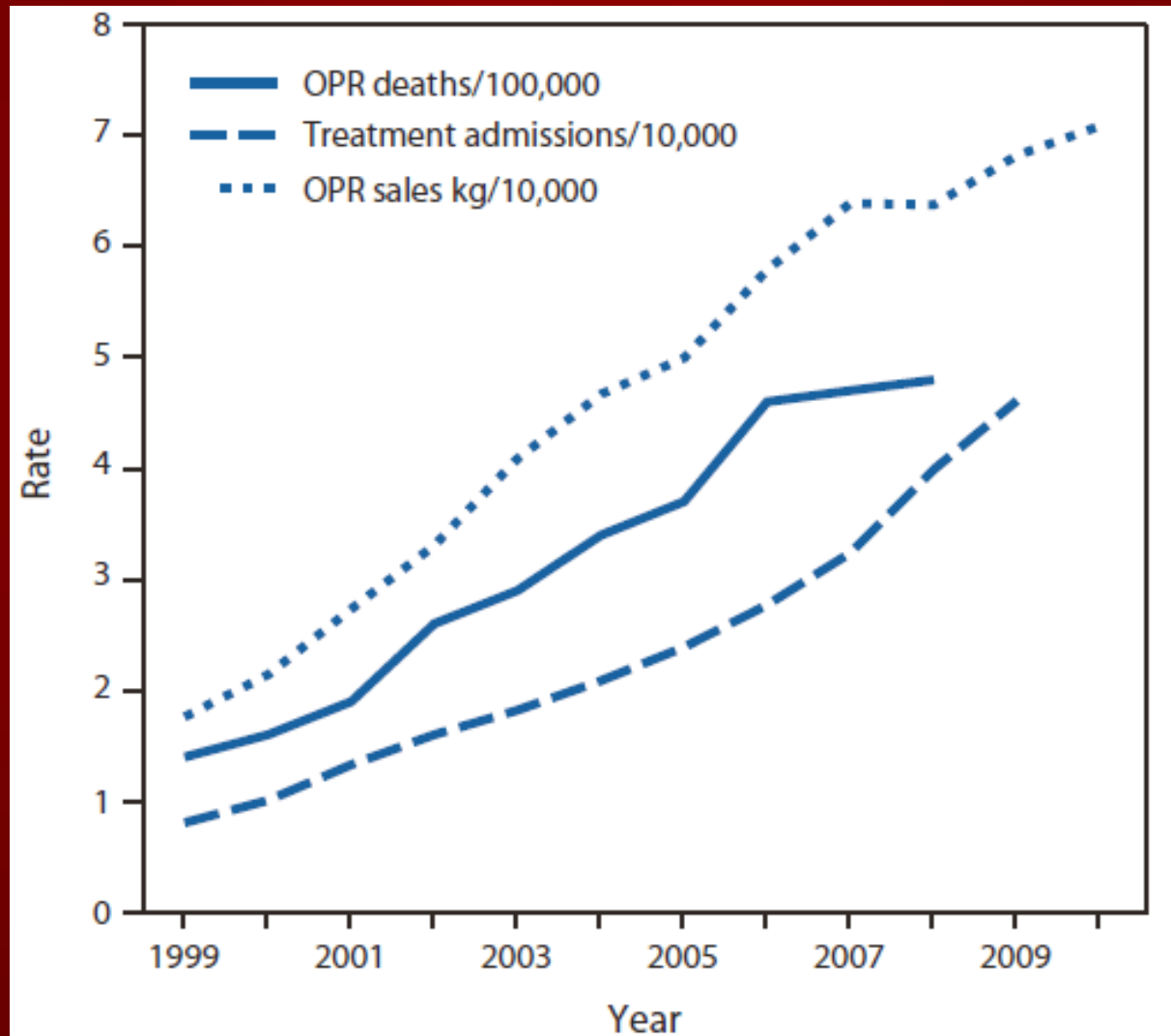


# THE GROWTH OF OPIOID USE 1986-2010

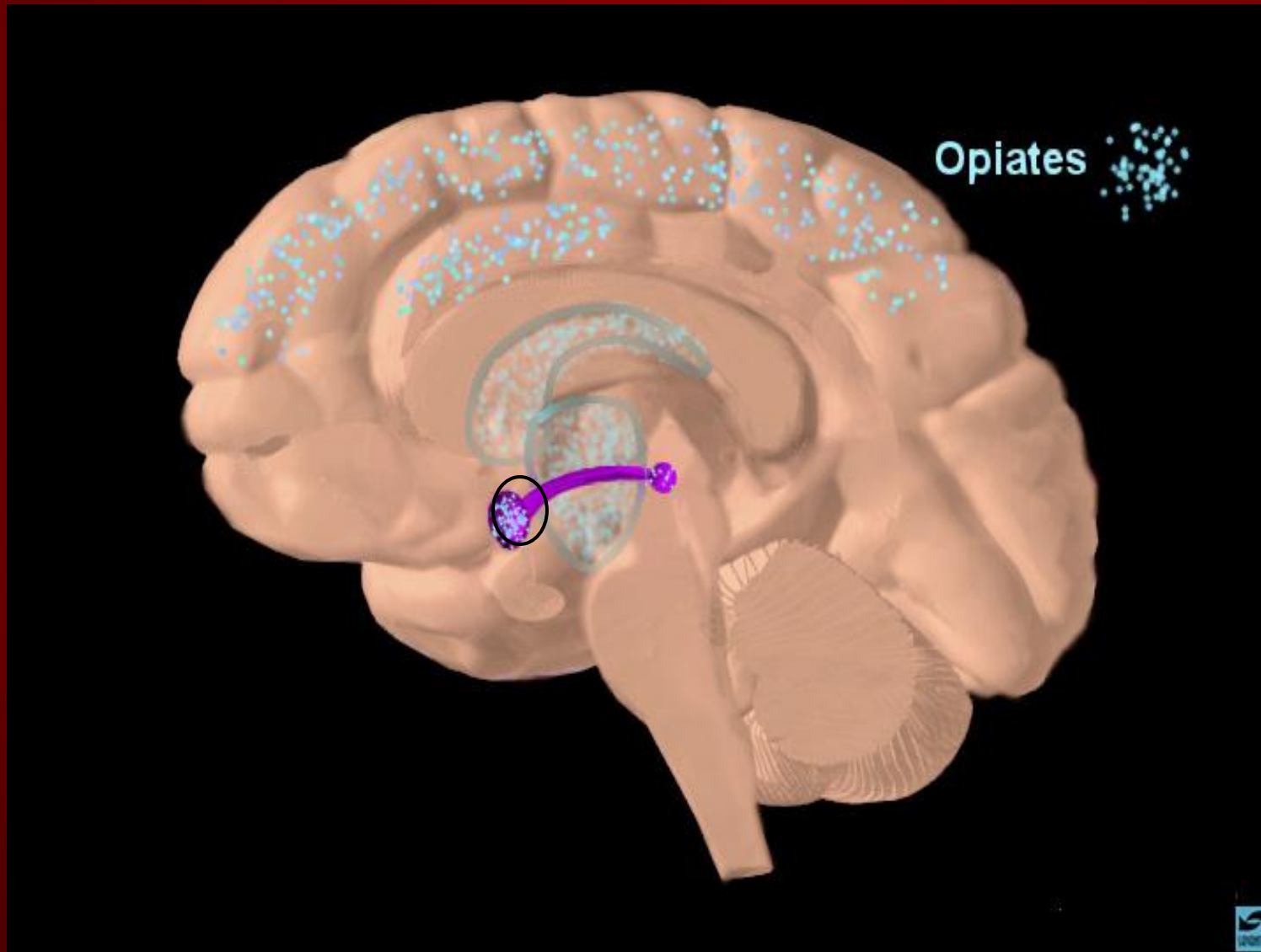
## THE PERFECT STORM, CONT.

- Managed Care led to:
  - Less time spent per patient
  - Shrinking primary care reimbursement
  - Lack of funding for substance abuse treatment
  - Lack of funding for biopsychosocial approaches to pain
    - Limitations on Physical Therapy, Cognitive-Behavioral Therapy, and care coordination
- The age of too much information
  - Desensitized patients and providers to risks

# THE GROWTH OF OPIOID SALES, TREATMENT ADMISSIONS, AND DEATHS



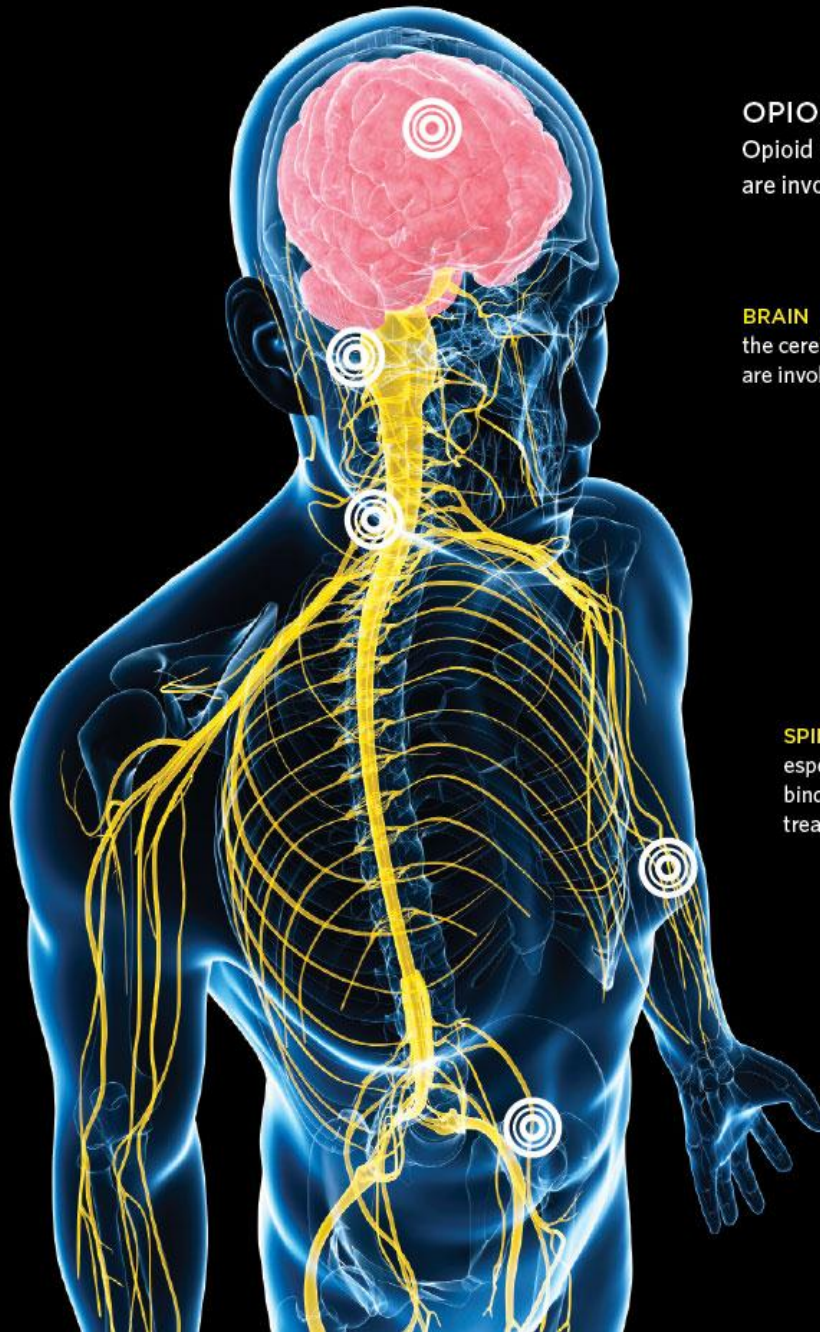
# ENDOGENOUS OPIATE BINDING SITES



○ = Nucleus  
Accumbens

**Purple**  
indicates brain  
reward pathway





## OPIOID RECEPTORS IN THE BODY

Opioid receptors are dispersed throughout the body, but a few key regions are involved in the major effects (and side effects) of opioid drugs.

**BRAIN** Opioids bind to receptors expressed in many parts of the brain, including the cerebellum, nucleus accumbens, and hypothalamus. Many of these regions are involved in pain perception, emotion, reward, and addiction.

**BRAINSTEM** Opioid activity in the brainstem can affect breathing by quieting neurons that control respiration. Respiratory depression is a dangerous side effect of opioid drugs, and is commonly cited as the cause of death in cases of opioid overdose.

**SPINAL CORD** The transmission of pain signals in the spinal cord, especially in a region called the dorsal horn, is dampened by opioids binding to receptors on these cells. This is one intended target of opioid treatments and a mechanism of the drugs' unrivaled analgesic properties.

**PERIPHERAL NEURONS** Pain-sensing neurons send nociceptive messages from the periphery to the spinal cord. Binding opioid receptors in these neurons is another way that opioid drugs curb pain sensations.

**INTESTINE** Opioid receptors are expressed in neurons regulating peristalsis. Inhibition of these cells upon opioid binding leads to another side effect of opioid medications, constipation.

# RISKS FOR PATIENTS USING OPIOIDS

- Endocrinopathies – Hypogonadism, Alterations in growth hormone
- Hyperalgesia (increased sensitivity to pain)
- Sleep Apnea
- Constipation
- Decline in cognition
- Immunosuppression
- Respiratory depression
- Symptoms of depression, **PTSD**, anxiety
- Decline in functional Improvement
- Increased risk of falls
- Increased risk for accidents
- Chronic dry mouth with increased risk of dental disease
- Osteoporosis
- **Dependence/Addiction**
- Death

# CANNABIS AND PAIN

- Cannabinoids have been used as analgesics for more than 3000 years (Mechoulam & Ben-Shabat, 1999)
- Cannabinoids provide analgesia for chronic neuropathic pain caused by multiple conditions such as HIV, multiple sclerosis, and fibromyalgia (Turcotte et al., 2010)
- Cannabinoids provide a modest and short-term reduction in pain intensity for chronic pain (Martin-Sanchez et al., 2009)
- Cannabinoids are not effective in reducing acute inflammatory and thermal pain (Turcotte et al., 2010)
- There are synergistic effects between cannabinoid and opioid receptors (Leung, 2011)

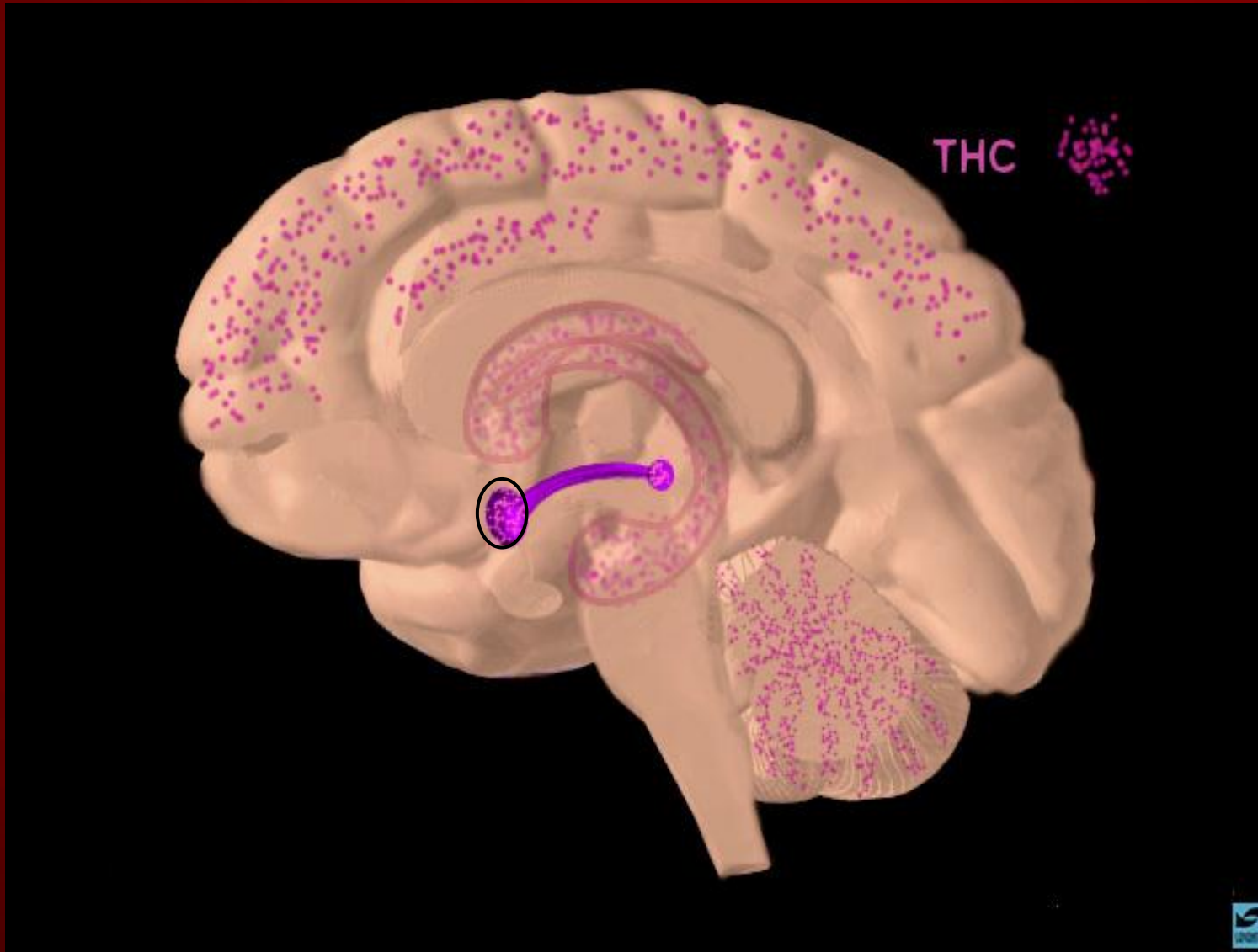
# CANNABIS AND PAIN

- For the above reasons, cannabis use has been proposed for pain relief in some populations



- There are three main objections:
  - Marijuana is illegal in many states
  - Not all marijuana is the same: the three primary chemicals within the cannabis plant – cannabidiol, tetrahydrocannabinol, and cannabidiol – vary in relative amounts and absolute concentration from plant to plant
  - Marijuana has many negative side effects, including paranoia, psychosis, memory loss, confusion, drowsiness, dizziness, and decreased motivation
- There is also a debate about smoked marijuana vs. cannabis-based medicines

# ENDOCANNABINOID BINDING SITES

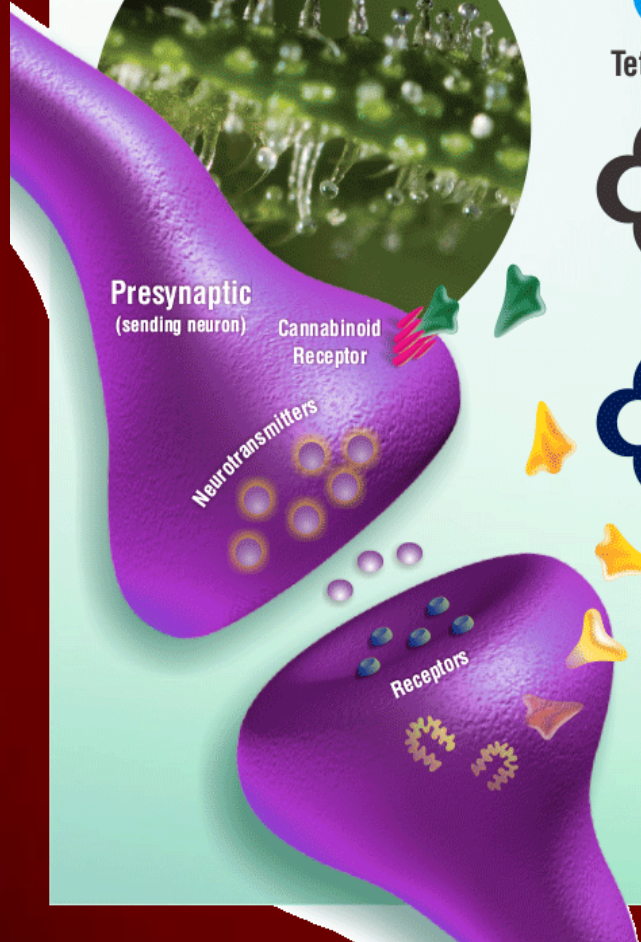
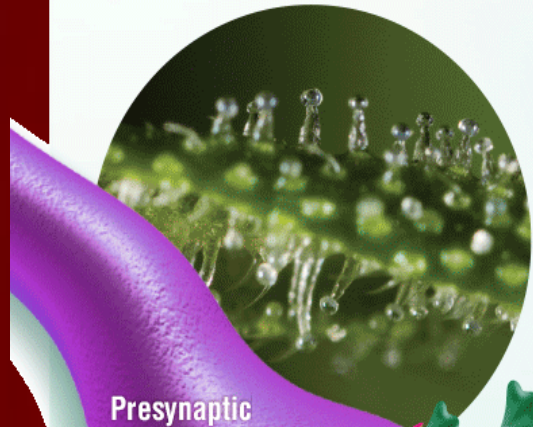


○ = Nucleus  
Accumbens

**Purple**  
indicates brain  
reward pathway

# The Human Endocannabinoid System

CBD, CBN and THC fit like a lock and key into existing human receptors. These receptors are part of the endocannabinoid system which impact physiological processes affecting pain modulation, memory, and appetite plus anti-inflammatory effects and other immune system responses. The endocannabinoid system comprises two types of receptors, CB1 and CB2, which serve distinct functions in human health and well-being.



Tetrahydrocannabinol



Cannabidiol



Cannabinol

CB1 receptors are primarily found in the brain and central nervous system, and to a lesser extent in other tissues.

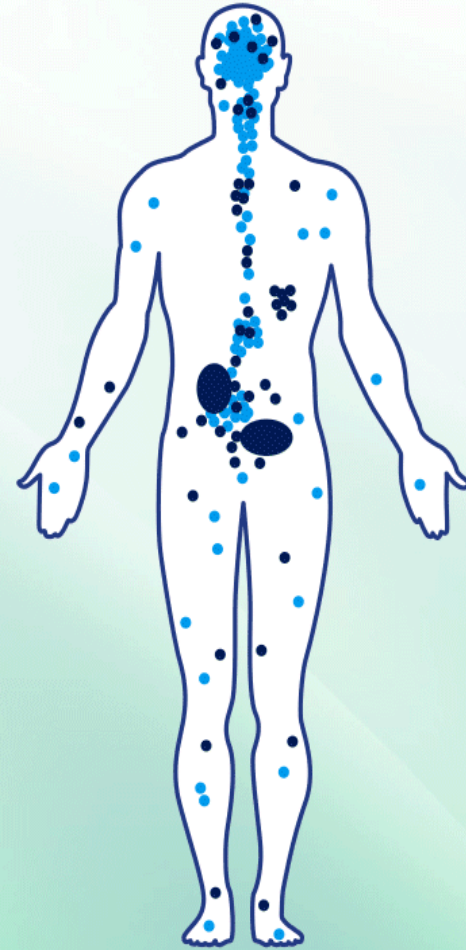


CBD does not directly "fit" CB1 or CB2 receptors but has powerful indirect effects still being studied.



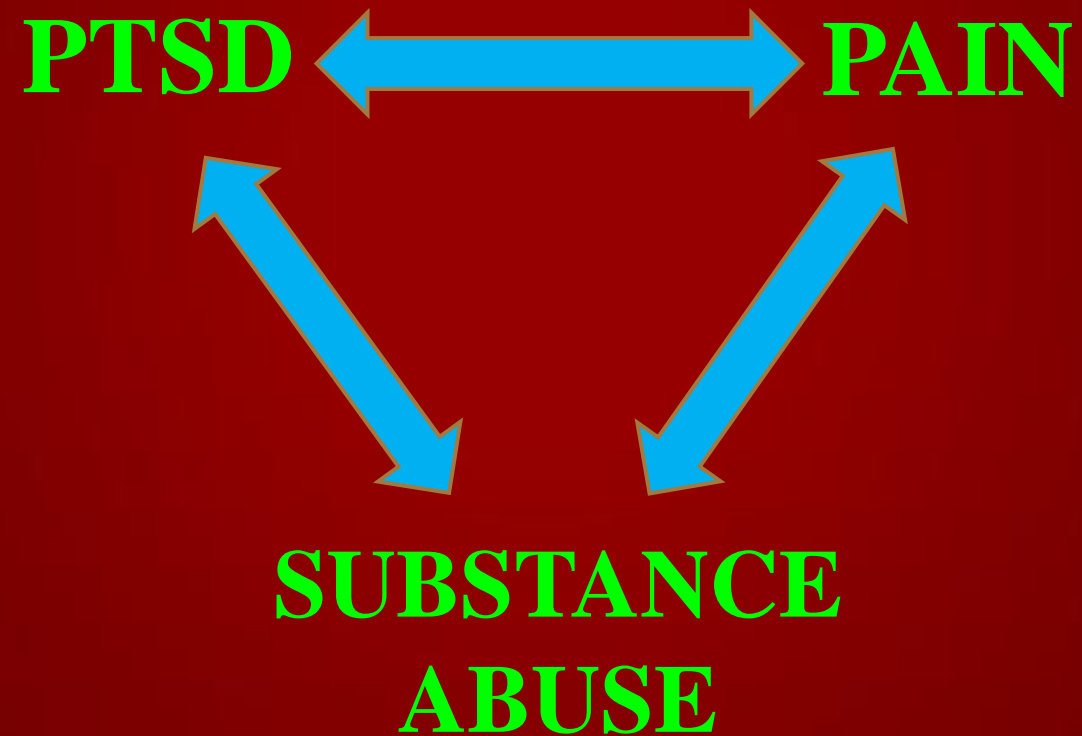
CB2 receptors are mostly in the peripheral organs especially cells associated with the immune system.

## Receptors are found on cell surfaces



**CO-OCCURRING PTSD,  
PAIN, AND SUBSTANCE ABUSE**

# PTSD, PAIN, AND SUBSTANCE ABUSE





# COMMON CO-MORBIDITIES IN ARMY VETERANS

- PTSD
- Substance abuse
- Depression
- Traumatic brain injuries (TBI)
- Chronic pain
- Insomnia

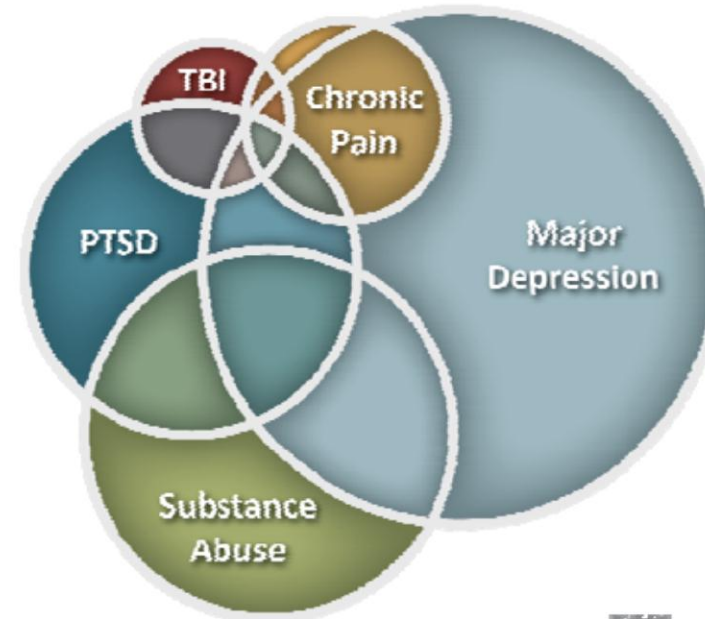


Figure II-14: Overlapping of Multiple Health Issues<sup>121</sup>

# PTSD AND PRESCRIPTION OPIOID USE FOR CHRONIC PAIN

- Patients with pain and PTSD are significantly more likely to have used opioids for pain control than patients without PTSD (Phifer et al., 2011)
  - Are physicians more likely to respond to patients in high distress?
- Opioids are most likely to be used in patients with the highest PTSD symptom severity scores (Schwartz et al., 2006)

# CHRONIC PAIN DIAGNOSES IN IRAQ AND AFGHANISTAN VETERANS BY MH DIAGNOSTIC CATEGORY (2002-2011)

	Chronic Pain n (%)	Relative Risk (95% CI)
No MH Diagnosis	67730 (27.5)	1.00 (REF)
MH Diagnosis (No PTSD)	34985 (40.7)	1.40 (1.38, 1.41)
PTSD	59379 (52.2)	1.51 (1.50, 1.53)

N = 445,767

All p-values < 0.0001

Seal et al., 2012

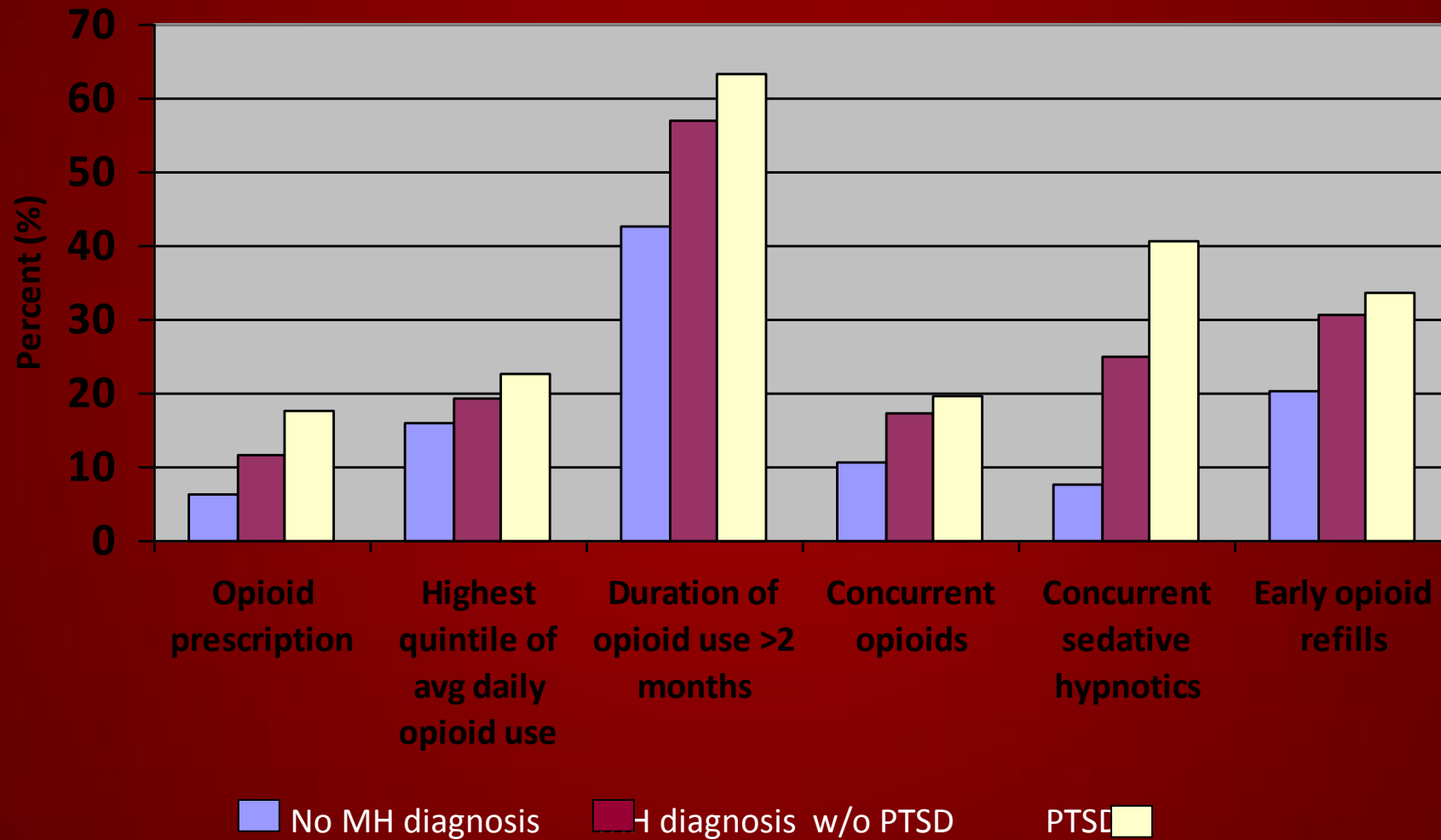
# ASSOCIATION OF MH DIAGNOSIS WITH PRESCRIPTION OPIOIDS WITHIN 1 YEAR OF PAIN DIAGNOSIS IN OEF/OIF VETERANS

Mental Health Diagnostic Category	Opioid Prescription n (%)	Relative Risk (95% CI)
No MH Diagnosis (Ref)	4488 (6.5)	1.00
MH Diagnosis (No PTSD)	3205 (11.7)	1.74 (1.67, 1.82)
PTSD	7983 (17.8)	2.58 (2.49, 2.67)

N = 141,029

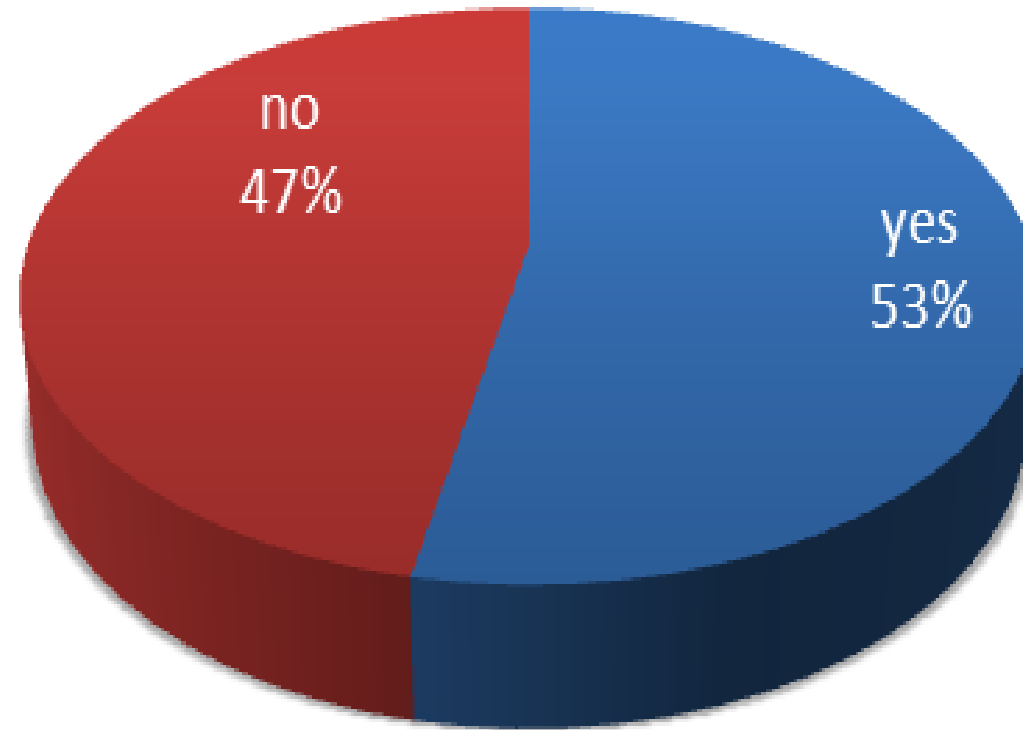
All p-values < 0.001

# HIGH RISK OPIOID USE IN IRAQ AND AFGHANISTAN VETERANS WITH MH PROBLEMS



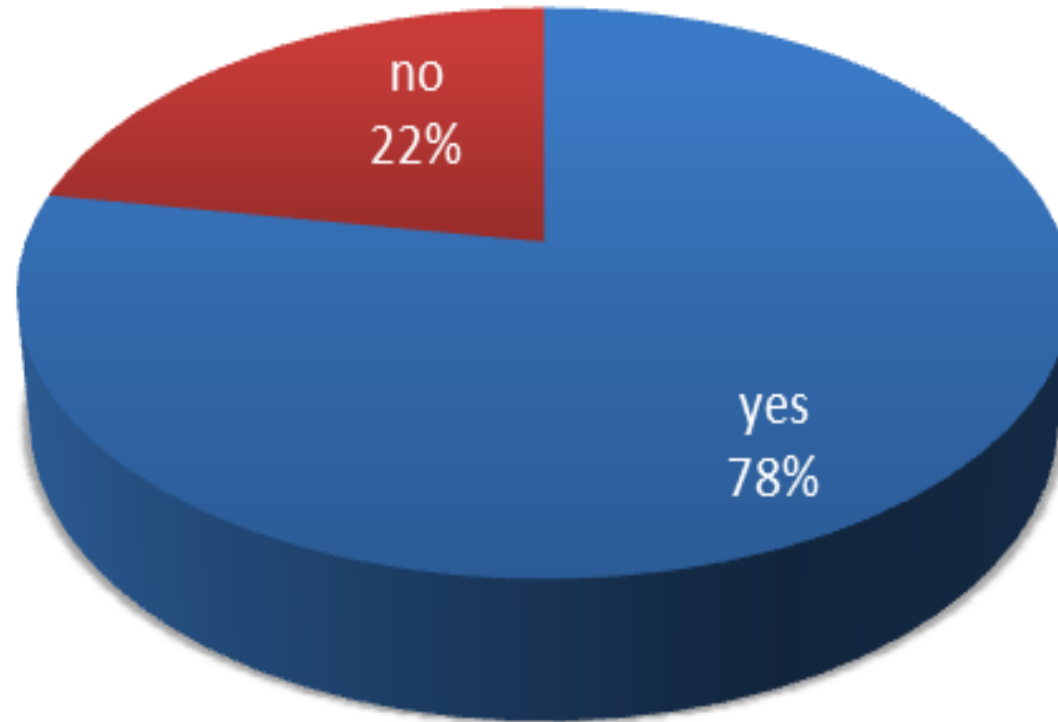
# HISTORY OF CHILDHOOD ABUSE VETERANS INTEGRATED PAIN CENTER

10/31/2014-2/28/2014



# HISTORY OF TRAUMA VETERANS INTEGRATED PAIN CENTER

10/31/2014-2/28/2014



# POSSIBLE UNDERLYING MECHANISMS FOR THE RELATIONSHIP BETWEEN PTSD, PAIN, AND OPIOID USE

- Opioids blunt trauma-related negative thoughts
- Opioids inhibit ACTH and glucocorticoid release, decreasing the stress response
- Opioids decrease Norepinephrine release from locus coeruleus, reducing the exaggerated fear response

Bremner et al., 1996; Jakupcak et al., 2010





# PRESCRIPTION OPIOIDS AND NEGATIVE OUTCOMES IN OEF/OIF VETERANS

- Receiving prescription opioids was associated with increased risk of adverse clinical outcomes, *particularly in Veterans with PTSD*
  - Wounds or injuries
  - Self-inflicted injuries
  - Violence-related injuries
  - Opioid-related accidents and overdoses
  - Non-opioid accidents and overdoses

# RISKS FOR INADVERTENT OPIOID OVERDOSE

- ◆ **Substance Use Disorders**
- ◆ Depression, **PTSD**, Anxiety Disorder
- ◆ Benzodiazepine Use
- ◆ Underlying lung disease
- ◆ Underlying liver disease
- ◆ On 100 mg or more of Morphine equivalents per day
- ◆ Patients over 65
- ◆ *Veterans Health Administration patients had nearly twice the rate of fatal accidental poisoning compared with adults in the general US population*

# THE EFFECTS OF PTSD, SUDS, AND PAIN ON SLEEP

- Insomnia is one of 20 defining criteria of PTSD
  - Nightmares are another
- All substances interfere with sleep stages and patterns
- Chronic pain interferes with sleep
- Lack of sleep worsens PTSD and pain
- Therefore, problematic sleep must be addressed to treat the confluence of PTSD, SUDS, and pain

# **TREATMENT OF CO-OCCURRING PTSD, PAIN, AND SUBSTANCE ABUSE**

# TREATMENT DECISIONS INVOLVING CO-OCCURRING PTSD, PAIN, AND SUDS

- Treating PTSD in the context of pain and Substance Use Disorders requires treating the pain and substance abuse
- Treating pain in the context of PTSD and Substance Use Disorders requires treating the PTSD and substance abuse
- Treating Substance Use Disorders in the context of PTSD and pain requires treating the PTSD and pain
- Treating all three together is necessary

# TREATING PTSD, PAIN, AND SUBSTANCE ABUSE

- Sequential treatment of one before the others will fail
- Simultaneous treatment is necessary
- A maximum of integrated treatment is best
- PTSD, pain, and substance abuse should be managed by an interdisciplinary team of primary care physicians, MH/SA clinicians, pharmacists, pain specialists, and allied health therapists
- There is strong evidence for collaborative care models in the VA that use a Care Manager and combine pain and mental health treatment (Dobscha et al., 2009; Kronke et al., 2010)

# CRITICAL ELEMENTS OF TREATMENT

- Diaphragmatic/mindful breathing
  - Other forms of relaxation, such as progressive muscle relaxation
- Cognitive restructuring
- Addressing mixed feelings
- Address insomnia
- Exercise
- Mind-body approaches
  - Yoga, Tai Chi, QiGong

# NON-DRUG PAIN MANAGEMENT STRATEGIES IN THE CONTEXT OF PTSD AND SUDS

## Medical options

- Orthopedic consultation
- Prosthetic devices
- Surgery
- TENS Units
- Nerve stimulation
- Interventional pain management
- Prolotherapy
- Blocking or burning nerves

## Physical therapies

- Physical therapy
- Occupational therapy
- Hydrotherapy
- Chiropractic care
- Stretching
- Therapeutic massage
- Heat
- Cold



# MEDICATION TREATMENT OF SUBSTANCE USE DISORDERS

- Alcohol:
  - Antabuse (Disulfiram)
  - Naltrexone
  - Acamprosate
- Opioids:
  - Methadone
  - Buprenorphine
  - Suboxone



# INTEGRATED CBT TREATMENT OF CHRONIC PAIN AND PTSD

- Session 1 Education on Chronic Pain and PTSD
- Session 2 Making Meaning of Pain and PTSD
- Session 3 Thoughts/Feelings related to Pain and PTSD & Cognitive Errors
- Session 4 Cognitive Restructuring
- Session 5 Diaphragmatic Breathing and Progressive Muscle Relaxation
- Session 6 Avoidance and Interoceptive Exposure
- Session 7 Pacing and Pleasant Activities
- Session 8 Sleep Hygiene
- Session 9 Safety/Trust
- Session 10 Power/Control/Anger
- Session 11 Esteem/Intimacy
- Session 12 Relapse Prevention and Flare-up Planning

# INTEGRATED CBT TREATMENT OF CHRONIC PAIN AND PTSD PILOT RESULTS

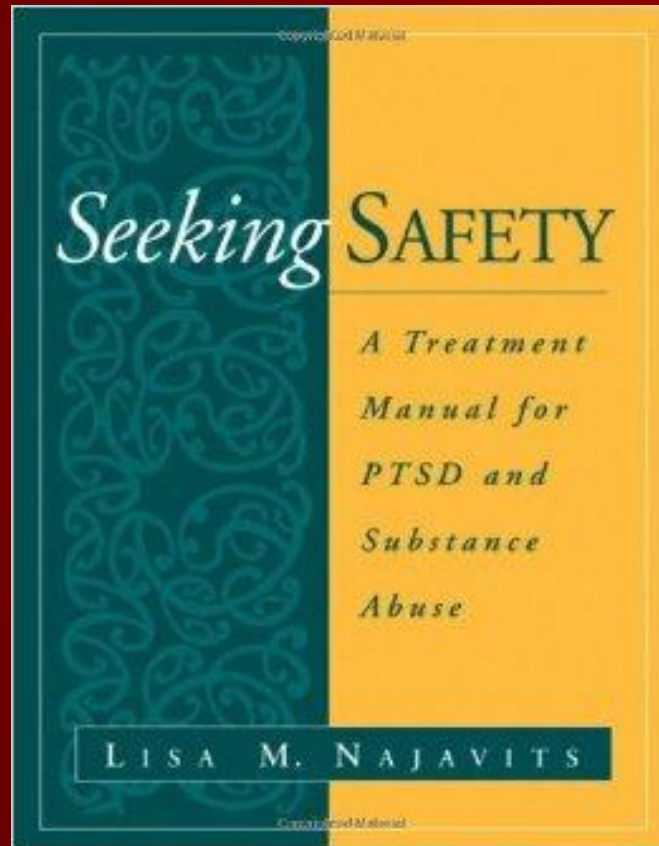
- PTSD, pain, and disability scores declined significantly (Otis et al., 2009)
- Then Otis & colleagues piloted a 6 session version
- PTSD and pain scores declined significantly (Otis & Keane, 2014)

# PSYCHOLOGICAL TREATMENT OF PTSD AND SUDS

## Evidence-Based Psychotherapies for Integrated Treatment:

- Seeking Safety
- Dialectical Behavior Therapy (DBT)
- EMDR

# SEEKING SAFETY



- 25 lessons on topics that overlap between PTSD and Substance Abuse
  - Safety Skills
  - Grounding
  - Triggers
  - Anger
  - Boundaries
  - Self-care
  - Honesty
  - Compassion

# SEEKING SAFETY

- Weekly 90 minute sessions
- Often taught in 12 sessions
- Can be provided individually or in groups
- Typical group size is 8 members
- Combined psychoeducational and psychodynamic treatment
- Can be provided by professionals or paraprofessionals

# SEEKING SAFETY RESULTS

- 6 randomized controlled trials and 3 controlled studies
- Seeking Safety has shown positive results across all studies (Najavits & Hien, 2013)
- Populations include
  - Women outpatients, inpatients, Veterans, homeless women, rural women, and women in prison;
  - Men outpatients, inpatients, and Veterans;
  - Adolescent girls; and
  - Young African-American men.

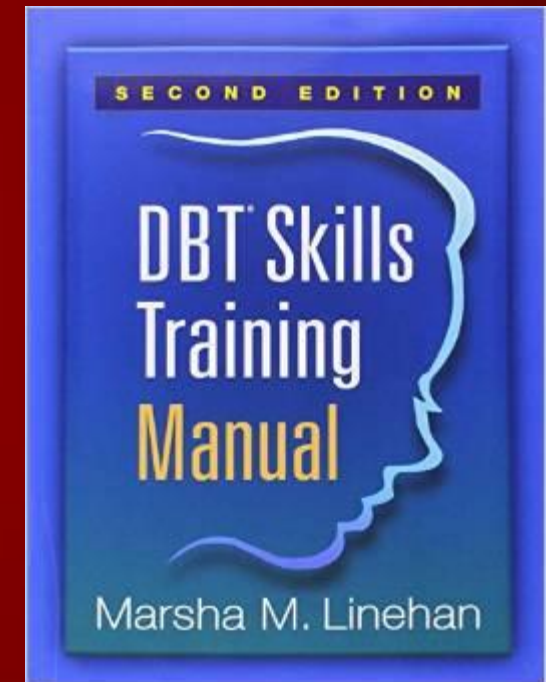
# DIALECTICAL BEHAVIOR THERAPY

- Combination of individual therapy and group DBT Skills Training
- Usually provided in teams with different therapists
- One therapist carries a beeper and takes emergency phone calls for coaching DBT skills
- DBT Skills Training group lasts one year, with each topic covered twice



# DBT SKILLS TRAINING

- Four topics with multiple lessons
  - Mindfulness
  - Interpersonal Effectiveness
  - Distress Tolerance
  - Affect Regulation
- New manual provides suggested menus of different specific skills and exercises with different populations



# DBT RESULTS

- 18 randomized controlled trials
- Results are all positive
- Populations include:
  - Women: with Borderline Personality Disorder (BPD) and suicidality, with **BPD and substance dependence**, with **BPD and opiate addiction**, domestic violence victims, and with childhood sexual abuse;
  - Adults: with BPD, with personality disorders, with Bipolar Disorder, prisoners with intellectual disabilities, and prisoners with impulsivity;
  - Male prisoners; and
  - Adolescents: suicidal, female offenders, with self-injurious behavior, with eating disorders.

# EYE MOVEMENT DESENSITIZATION AND REPROCESSING

- Patient focuses on distressing image
  - States a belief that goes with it
  - Notices feelings that go with it
  - Identifies body sensations that go with it
- Therapist passes fingers back and forth, guiding the eyes
- As this occurs, the images, thoughts, feelings, and body sensations change
- Adaptive information processing results

# EYE MOVEMENT DESENSITIZATION AND REPROCESSING

- Auditory and tactile alternatives to eye movements using bilateral stimulation
- Additional exercises:
  - Safe Place
  - Lightstream
  - Resource-building
  - Protocols for substance abuse
  - Etc.

# EYE MOVEMENT DESENSITIZATION AND REPROCESSING RESULTS

- EMDR works for PTSD (Davidson & Parker, 2001; Foa et al., 2009; Maxfield & Hyer, 2002; Seidler & Wagner, 2006)
- EMDR addresses substance abuse (Vogelmann-Sine et al., 1998)
- EMDR works for phantom limb pain (de Roos et al., 2010; Schneider et al., 2008; Wilensky, 2006)
- EMDR uses the same mechanism for resolution (eye movements) that sleep does
  - EMDR also targets nightmares

# A PROMISING TREATMENT: MINDFULNESS MEDITATION

- Mindfulness Meditation
  - Mindfulness-Based Stress Reduction
    - MBSR reduces PTSD symptoms (Kearney et al., 2012; Kluepfel et al., 2013)
    - MBSR reduces pain (Kabat-Zinn, 2013)
  - Mindfulness-Based Relapse Prevention
    - For substance abuse (Bowen & Chawla, 2010)
  - Mindfulness meditation is also a central part of Dialectical Behavior Therapy
    - DBT reduces substance abuse and post-traumatic behavior (Linehan et al., 1999; Linehan et al., 2002; van den Bosch et al., 2005)

# CBT-I FOR INSOMNIA

- Cognitive-Behavioral Therapy for Insomnia (Perlis et al., 2008)
  - Psychoeducation about sleep and what interferes with it
  - Sleep restriction
  - Stress management
  - Cognitive restructuring
  - Relapse prevention



# IMAGERY REHEARSAL THERAPY FOR NIGHTMARES

- Imagery Rehearsal Therapy 3-5 sessions (IRT, Krakow & Zadra, 2006)
- IRT results in significant improvements (Krakow et al, 2001; Lu et al., 2009; Nappi et al., 2010)
  - Fewer post-traumatic nightmares (from 6.4 to 2.4 in one study)
  - Fewer nights with nightmares (from 3.9 to 1.3 in one study)
  - Improved sleep
  - Decreased PTSD symptoms
- These studies were done with sexual assault survivors and Veterans





# WELLNESS ACTIVITIES

- Mindfulness Meditation
- Yoga
- Qi Gong
- Tai Chi
- Massage
- Acupuncture

# RESOURCES

# PTSD AND SUDS

- PTSD 101 course about treating PTSD and SUDs: [www.ptsd.va.gov/professional/ptsd101/course-modules/SUD.asp](http://www.ptsd.va.gov/professional/ptsd101/course-modules/SUD.asp)
- Practice recommendations for treating co-occurring PTSD and SUDs: [www.ptsd.va.gov/professional/pages/handouts-pdf/SUD\\_PTSD\\_Practice\\_Recommend.pdf](http://www.ptsd.va.gov/professional/pages/handouts-pdf/SUD_PTSD_Practice_Recommend.pdf)

# COGNITIVE-BEHAVIORAL THERAPY FOR PAIN

- *Managing Chronic Pain: A Cognitive-Behavioral Therapy Approach Therapist Guide* by John Otis
- *Managing Chronic Pain: A Cognitive-Behavioral Therapy Approach Workbook* by John Otis

# SEEKING SAFETY

- *Seeking Safety* (1998), Lisa Najavits
- *8 Keys to Trauma and Addiction Recovery* (2015), Lisa Najavits
- <http://www.treatment-innovations.org/seeking-safety.html>

# DIALECTICAL BEHAVIOR THERAPY

- *Cognitive-Behavioral Treatment of Borderline Personality Disorder* (1993), Marsha Linehan
- *DBT Skills Training Manual, 2<sup>nd</sup> edition* (2014), Marsha Linehan
- *DBT Skills Training Handouts and Worksheets, 2<sup>nd</sup> edition* (2014), Marsha Linehan
- <http://www.behavioraltech.com>
- <http://www.linehaninstitute.org/>

# EMDR

- *Eye Movement Desensitization and Reprocessing (EMDR): Basic Principles, Protocols, and Procedures, 2<sup>nd</sup> Ed.* (2001), Francine Shapiro
- *EMDR Chemical Dependency Treatment Manual* (1998), Silke Vogelmann-Sine, Larry Sine, Nancy Smythe, & A. J. Popke
- *Pain Control with EMDR: Treatment Manual* (2009), Mark Grant
- [www.emdr.com](http://www.emdr.com)
- [www.emdria.org](http://www.emdria.org)
- [www.emdrhap.org](http://www.emdrhap.org)

# MINDFULNESS

- *Mindfulness for Beginners: Reclaiming the Present Moment - and Your Life (Book and CD)*(2011), Jon Kabat-Zinn
- *Full Catastrophe Living* (revised edition, 2013), Jon Kabat-Zinn
- *Guided Mindfulness Meditation Series 1 (CD)* (2005), Jon Kabat-Zinn
- *Mindfulness-Based Relapse Prevention for Addictive Behaviors* (2010), Sarah Bowen and Neha Chawla
- Mindfulness-Based Stress Reduction:  
[www.umassmed.edu/cfm/stress/index.aspx?id=41252](http://www.umassmed.edu/cfm/stress/index.aspx?id=41252)
- [www.fammed.wisc.edu/mindfulness](http://www.fammed.wisc.edu/mindfulness)
- [www.marc.ucla.edu](http://www.marc.ucla.edu)



# COGNITIVE-BEHAVIORAL THERAPY FOR INSOMNIA

- *Cognitive Behavioral Treatment of Insomnia: A Session-by-Session Guide* (2008), by Michael L. Perlis, Carla Jungquist, Michael T. Smith, and Donn Posner
- *Overcoming Insomnia: A Cognitive-Behavioral Therapy Approach Workbook* (2008), Jack Edinger and Colleen Carney

# RESOURCES

- *Trauma and Substance Abuse (2<sup>nd</sup> ed.)* by Page Ouimette and Jennifer Read
- *Treating Survivors of Childhood Abuse: Psychotherapy for the Interrupted Life* by Marylene Cloitre, Lisa Cohen, and Karestan Koenen
- *Concurrent Treatment of PTSD and Substance Use Disorders Using Prolonged Exposure (COPE) Therapist Guide* by Sudie Back, Edna Foa, Therese Killeen, Katherine Mills, Maree Teesson, Bonnie Cotton, Kathleen Carroll, and Kathleen Brady

**Contact:**

**Brian L. Meyer, Ph.D.**

**[Brian.Meyer@va.gov](mailto:Brian.Meyer@va.gov)**