

Chronic Pain Syndrome and Interdisciplinary Approach to Treatment

Understanding Pain: Foundational Information

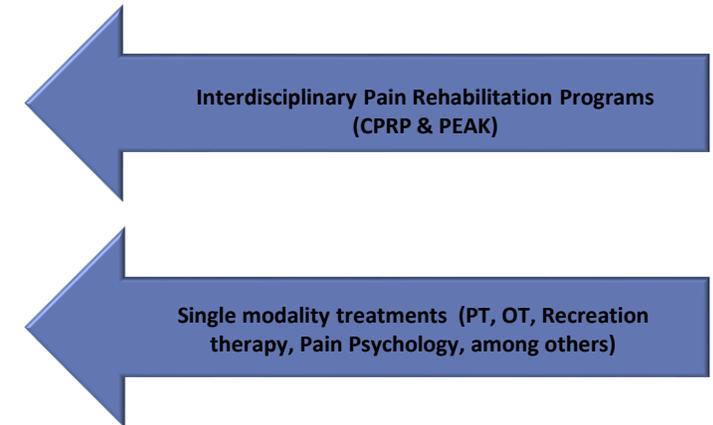
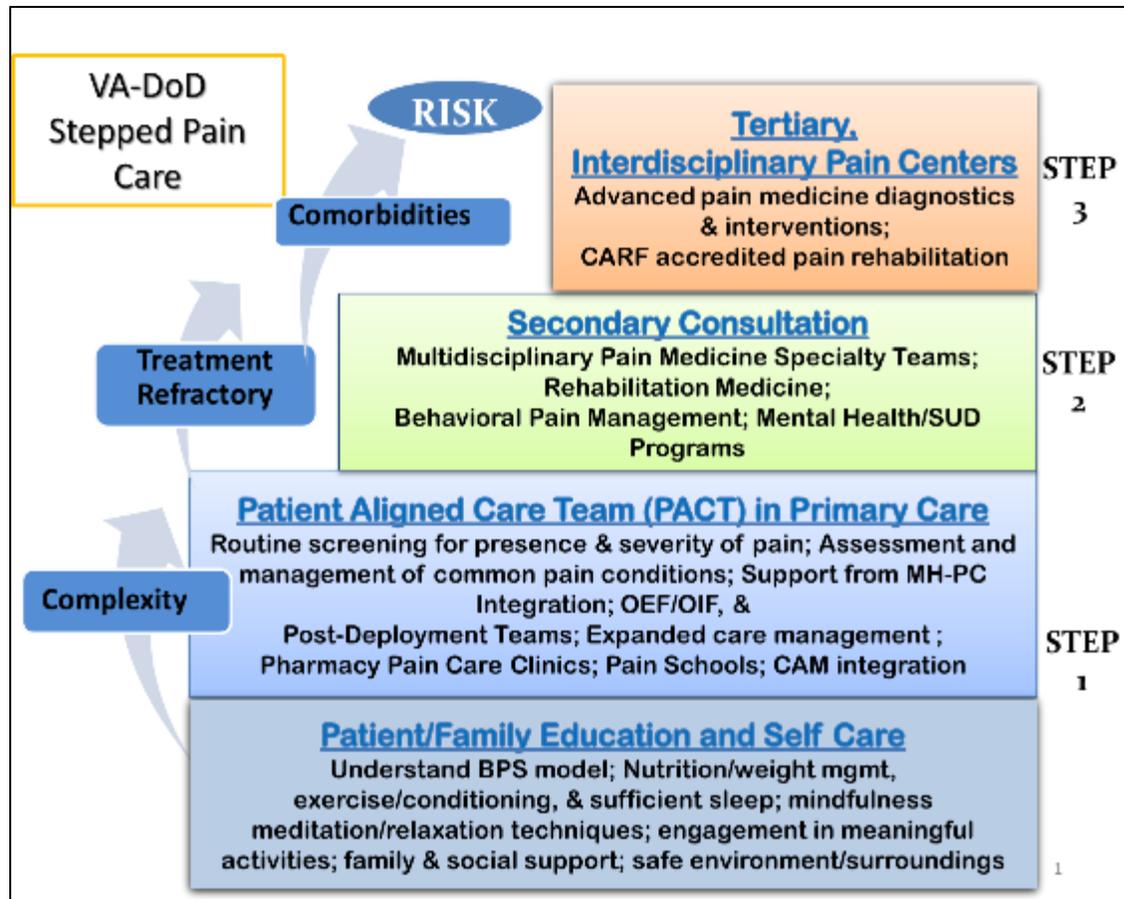
Pain: A Common Occurrence

- Pain affects approximately 60 million individuals worldwide, with national estimates indicating that it impacts upwards of 50 million in the United States (Interagency Pain Research Coordinating Committee 2016)
- Pain is among the most common and costly conditions associated with profound socioeconomic and personal burdens
- It has been identified as the leading cause of disability and is the most common reason for seeking medical attention
- Pain is one of the most significant public health problems experienced worldwide

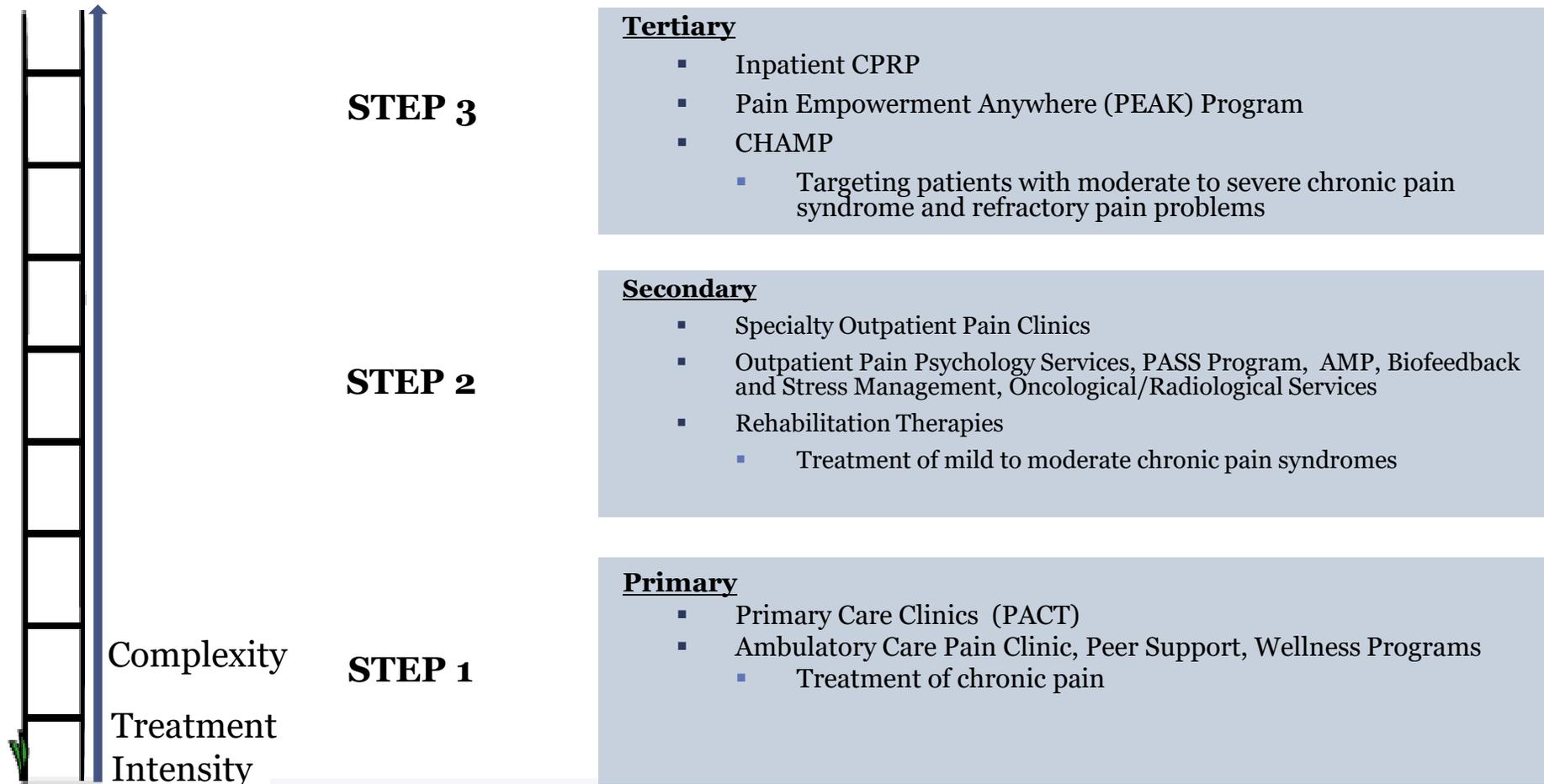
Pain: A Common Occurrence

- In recognition of the high prevalence of pain and associated costs, a number of programs and system improvements have been implemented to improve pain care at the VA:
 - In 2009, the VA mandated the development of at least one CARF (Commission on Accreditation of Rehabilitation Facilities) accredited interdisciplinary pain rehabilitation program within each of the 21 VISNs in the US
 - Stepped Pain Care: continuum of treatment guided by the needs of the patient given the complexity, refractoriness, co-morbidities, and risk
 - Opioid Safety Initiative: 1) team-based approach to safe opioid prescribing practices and monitoring, 2) reducing/eliminating opioid burden and bolstering of non-pharmacological modalities for pain management
 - Virtual Pain Care: development of novel approaches to pain care, including smart phone applications and tele-health treatment protocols

Pain Stepped Care Model



Pain Stepped Care Model In Action at JAHVH



Pain Definitions

- ▣ **McCaffrey (1968)**
 - ▣ Pain is “whatever the experiencing person says it is, existing whenever the experiencing person say it does”
- ▣ **International Association for the Study of Pain (1994)**
 - ▣ Pain is “an unpleasant sensory and emotional experience associated with, or resembling that associated with, actual or potential tissue damage”
 - ▣ Updated in 2020 (next slide)
- ▣ **Moseley and Arntz (2007)**
 - ▣ Pain is a “multiple system output, activated by an individual’s specific neural signature. The neural signature is activated whenever the brain perceives a threat.”

International Association for the study of Pain

- ▣ Pain definition “An unpleasant sensory and emotional experience associated with, or resembling that associated with, actual or potential tissue damage,”
- ▣ Expanded the definition by adding 6 key notes
 - Pain is always a personal experience that is influenced to varying degrees by biological, psychological, and social factors.
 - Pain and nociception are different phenomena. Pain cannot be inferred solely from activity in sensory neurons.
 - Through their life experiences, individuals learn the concept of pain.
 - A person’s report of an experience as pain should be respected.
 - Although pain usually serves an adaptive role, it may have adverse effects on function and social and psychological well-being.
 - Verbal description is only one of several behaviors to express pain; inability to communicate does not negate the possibility that a human or a nonhuman animal experiences pain.

Acute Versus Chronic Pain

Acute Pain

- Pain persisting **less than 3 months**
- Decreases in the context of healing
- Cause is typically known
- Is a symptom
- Think broken bone, strain, flu

Chronic Pain

- Pain duration of **more than 3 months**
- Persists beyond expected time for healing
- Cause may/may not be known, observable physiological signs may be absent
- Is a condition
- May be referred to as DJD, chronic low back pain, fibromyalgia

Most people recover from acute pain without developing chronic pain

Chronic Pain Classification

- Chronic pain is a complex condition and may occur in any part of the body
- Many individuals with chronic pain present with a variety of pain locations encompassing different subtypes
- Chronic pain is categorized as follows:
 - Nociceptive Pain (e.g., low back, joint, fibromyalgia)
 - Neuropathic Pain (e.g., diabetic neuropathy, spinal injury, cancer/HIV-related)
 - Headaches

Chronic Pain Versus Chronic Pain Syndrome

Chronic Pain (IASP)

- ▣ Pain persisting at least 3 months and beyond expected time for healing

Chronic Pain Syndrome (CPS) (ICD-9)

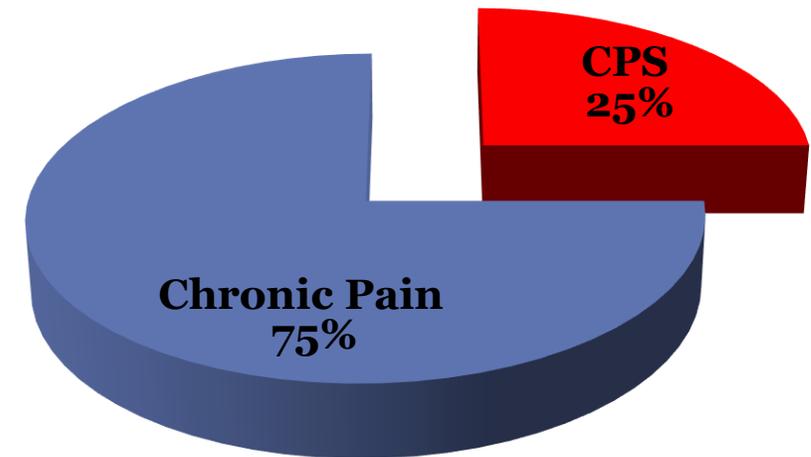
- Pain persisting at least 3 months
- Multiple work-ups and/or failed treatments
- Extreme focus on pain, and/or amplification of pain
- Major inactivity and/or physical deconditioning
- Sleep disruption
- Depression and irritability
- Significant reduction in social activities

CPS Symptomatology

- Poor self-esteem
- Guilt
- Anxiety
- Helplessness/hopelessness
- Social withdrawal
- Suicidal ideation
- Sleep disturbances
- Cognitive impairments
- Kinesiophobia
- Diminished libido
- Pain behaviors
- Relational problems
- Medication abuse
- Substance abuse
- Loss of employment
- Misbehavior by children in the home

CPS Prevalence

- Vast majority of individuals with chronically painful conditions **do not** go on to develop CPS, experience significant disruption in their lives as a result of chronic pain, or seek out treatment
- Only a **subset** of individuals go on to develop chronic pain syndrome
- Psychosocial risk factors are among the most robust predictors of CPS development



Biopsychosocial Conceptualization and Intervention

Pain Models

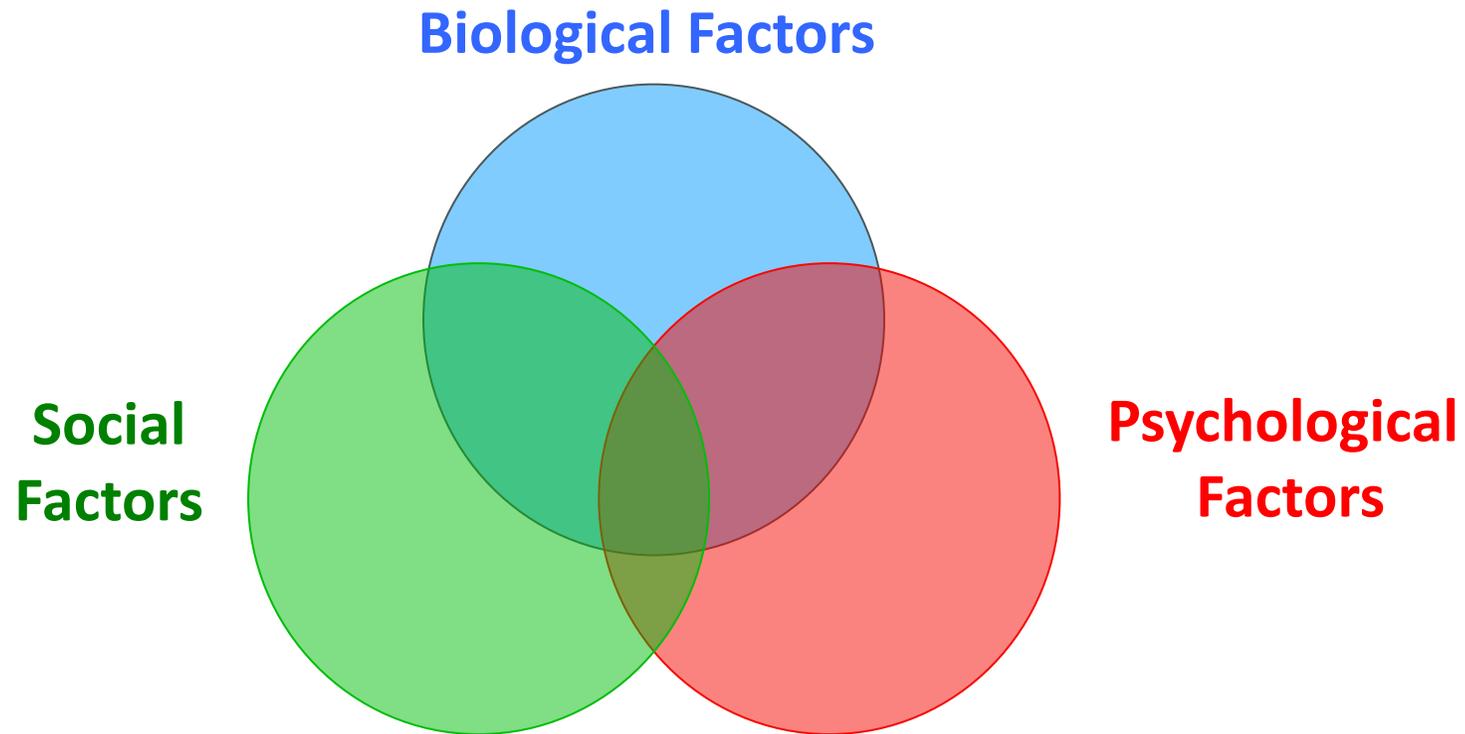
Biomedical model

- Pain is conceptualized one-dimensionally and solely explained biologically/medically
- Mind-body dualism, pain's origins are exclusively biological
- The amount of pain experienced is proportional to the amount of tissue damage
- Health reflects an absence of disease or pain

Biopsychosocial model

- Biological, psychological, and social dimensions are considered to fully understand the patient's condition
- Consider the relationships between the mind, body, and social context
- The amount of pain experienced does not directly correspond to the amount of tissue damage

Biopsychosocial Model of Pain



Psychosocial Variables

Thoughts

Hurt = Damage

Self-Efficacy/
Control

Fear of Movement

Pain as a Mystery

Catastrophizing

Emotions

Depression

Anxiety

Anger

Behaviors

Resting

Attention/Pleasant
Activities

Guarding

Over-Activity

Exercise

Social

Loss of Status

Social Support-
Solicitousness

Social Support-
Distraction

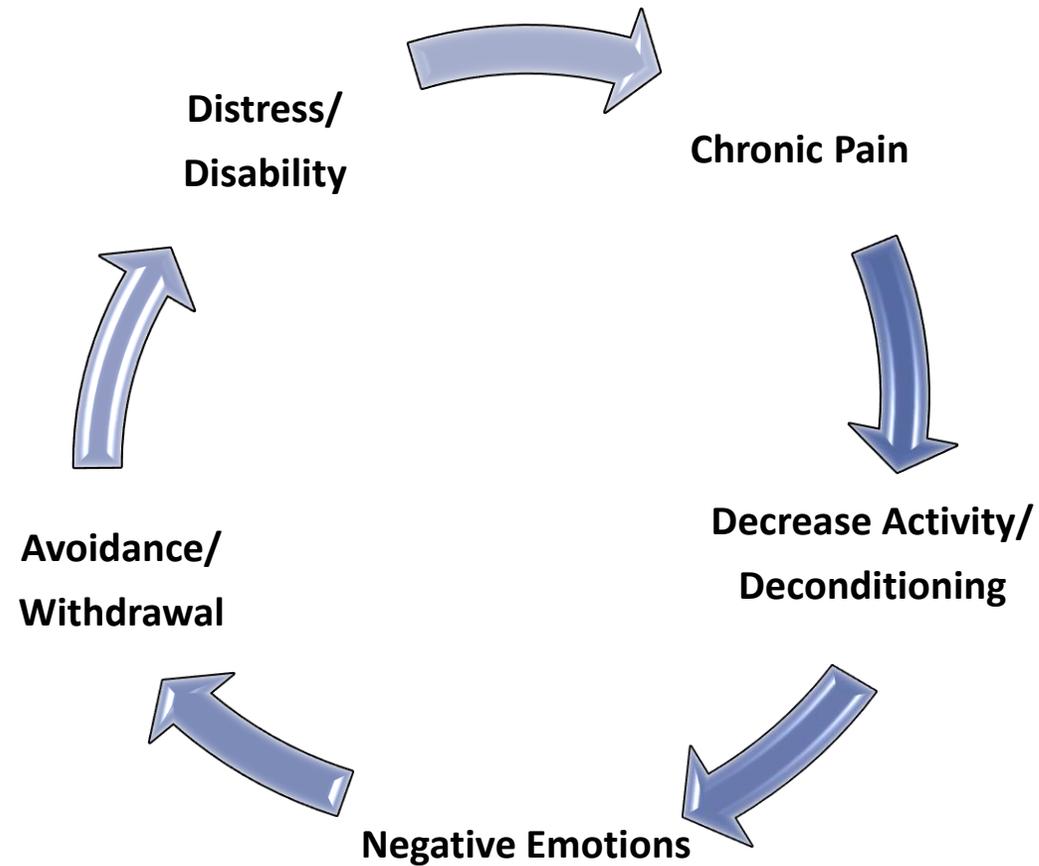
Isolation

Social Support-
Punishing

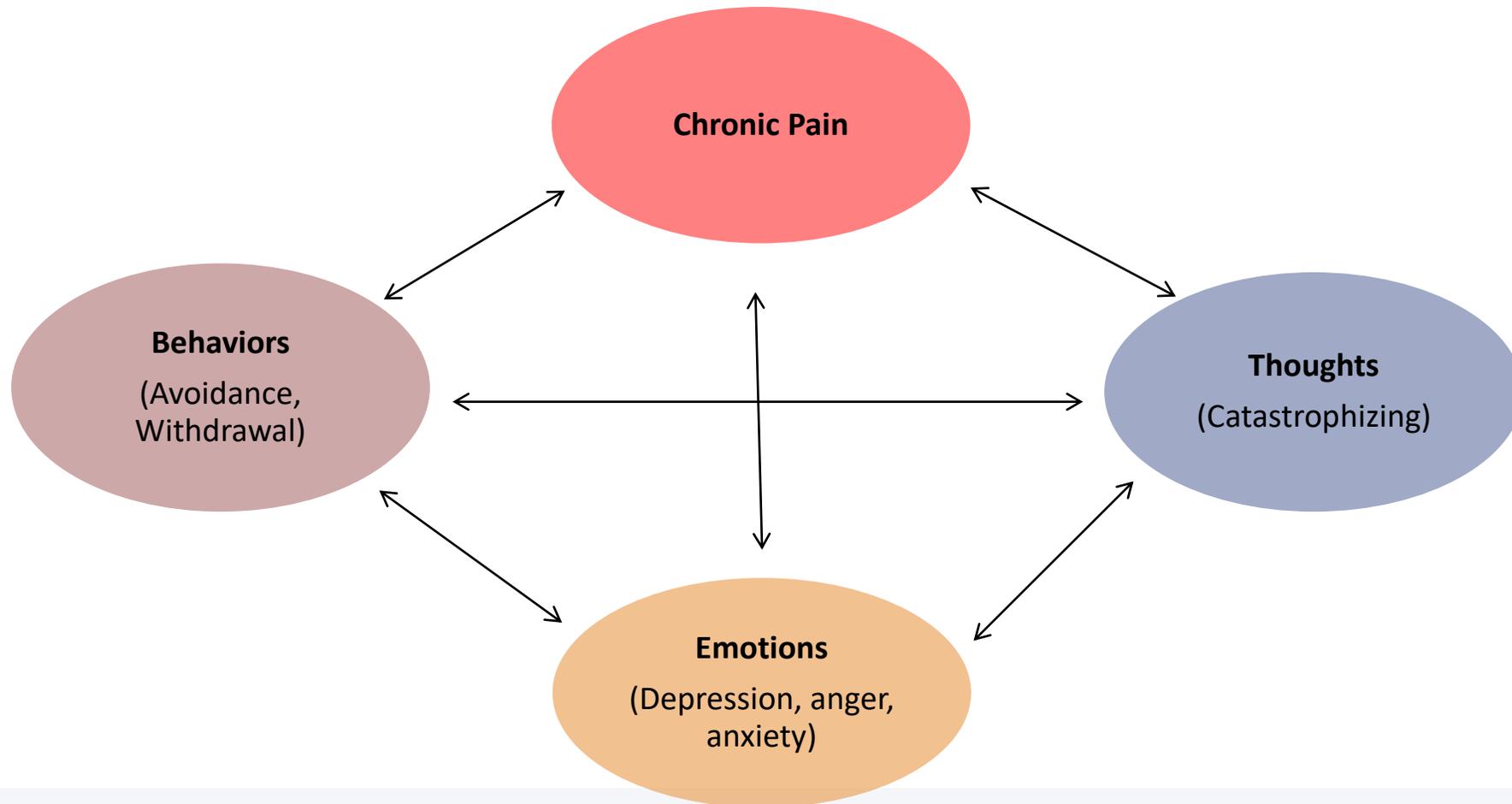
The Chronic Pain Cycle

- Chronic pain is affected by a whole host of factors and impacts numerous domains of functioning
- Over time, a process may develop, namely the chronic pain cycle, which involves:
 - Decreased activity, fear of movement, physical deconditioning
 - Negative thoughts and emotions
 - Avoidance from people, places, things
 - Distress/disability
- This is a cycle where steps do not necessarily occur in a step-wise fashion and interact bi-directionally

The Chronic Pain Cycle



Cognitive Behavioral Therapy for Chronic Pain



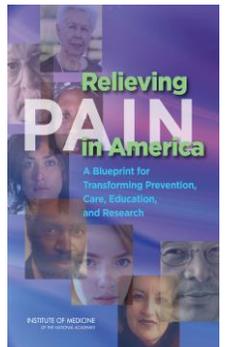
Cognitive Behavioral Therapy for Chronic Pain

- Focuses on interaction between thoughts, feelings (physical and emotional) and behaviors that contribute to the development and maintenance of the chronic pain experience
- Immediate targets:
 - Perceptions of disability
 - Functional impairment
 - Quality of life
- Goal is to help patients to “turn down the volume”



Interdisciplinary Pain Rehabilitation

- ▣ Institute of Medicine Report (2011)
 - ▣ “Comprehensive and interdisciplinary (e.g., biopsychosocial) approaches are the **most important and effective ways to treat pain**”
- ▣ Murphy et al. (2021)
 - ▣ Veterans evidence functional benefits when engaging in a program of pain rehabilitation modalities which vary in intensity
- ▣ Rodriguez & Garcia (2011)
 - ▣ Compared to patients receiving care through primary care, patients receiving care in comprehensive pain clinics endorsed fewer medical visits, emergency room visits, and lower pain medication use
- ▣ Gatchel & Okifuji (2006)
 - Following completion of pain rehabilitation, medical costs have been estimated to be reduced by as much as 68%
 - Interdisciplinary treatment has been estimated to save upwards of \$356,000 per person over the lifespan for healthcare and disability in comparison to conventional medical treatment



Interdisciplinary Approach

- ▣ Pain is best understood and treated with a biopsychosocial approach
 - ▣ Interaction between biology, psychology, and social factors that impact pain experience and quality of life (Gatchel et al, 2007)
 - ▣ Introduced early and at all levels of care with varying intensity of treatment
 - ▣ Not saved as “last resort” or for those perceived to have mental health issues
- ▣ Biopsychosocial in action
 - ▣ Rehabilitation focused
 - ▣ Active and self-management based
 - ▣ Multi-modal or integrated



Key Components

- ▣ Education
 - ▣ Biopsychosocial, Cognitive-Behavioral, Pain Neuroscience
- ▣ Activation
 - ▣ Graduated approach to movement and pacing
 - ▣ Engagement in hobbies/recreation
- ▣ Stress management
 - ▣ Relaxation training & Mindful meditation
- ▣ Cognitive coping
- ▣ Planning for flares
- ▣ Family involvement



Interdisciplinary Pain Programs at JAHVH

Inpatient Chronic Pain Rehabilitation Program (CPRP)



- ▣ Established in 1988
 - ▣ National program available to Veterans and Service Members
 - ▣ Only CARF-accredited, inpatient, chronic pain rehabilitation program in VHA
 - ▣ 3-week admission
- ▣ Opioid and muscle relaxant taper as a part of comprehensive rehabilitation
- ▣ Includes complex patients with multiple comorbidities, not functioning well despite treatment
- ▣ Shift from biomedical, single modality, passive approaches to *evidence-based*, biopsychosocial, active, rehabilitation
- ▣ Focused on improving functioning and quality of life

Pain Empowerment Anywhere Program (PEAK)



- ▣ Rooted in CARF-accredited inpatient and outpatient chronic pain rehabilitation programs (CPRP)
 - ▣ National program available to Veterans and Service Members
 - ▣ Recently CARF-accredited, and is the only fully virtual pain rehabilitation program that is accredited within VA
- ▣ 5-week, fully virtual, interdisciplinary pain rehabilitation program
- ▣ Blend of individual, group, team-based interventions, and family involvement
- ▣ Twice weekly groups
 - ▣ Education, movement, skills, connection
 - ▣ Pain neuroscience, pacing, mindful meditation, adaptive living skills, yoga, tai chi, and recreational therapy, among others
- ▣ Weekly individual sessions
 - ▣ Medical, PT, pain psychology
- ▣ Family Involvement

Prehab

CPRP & PEAK

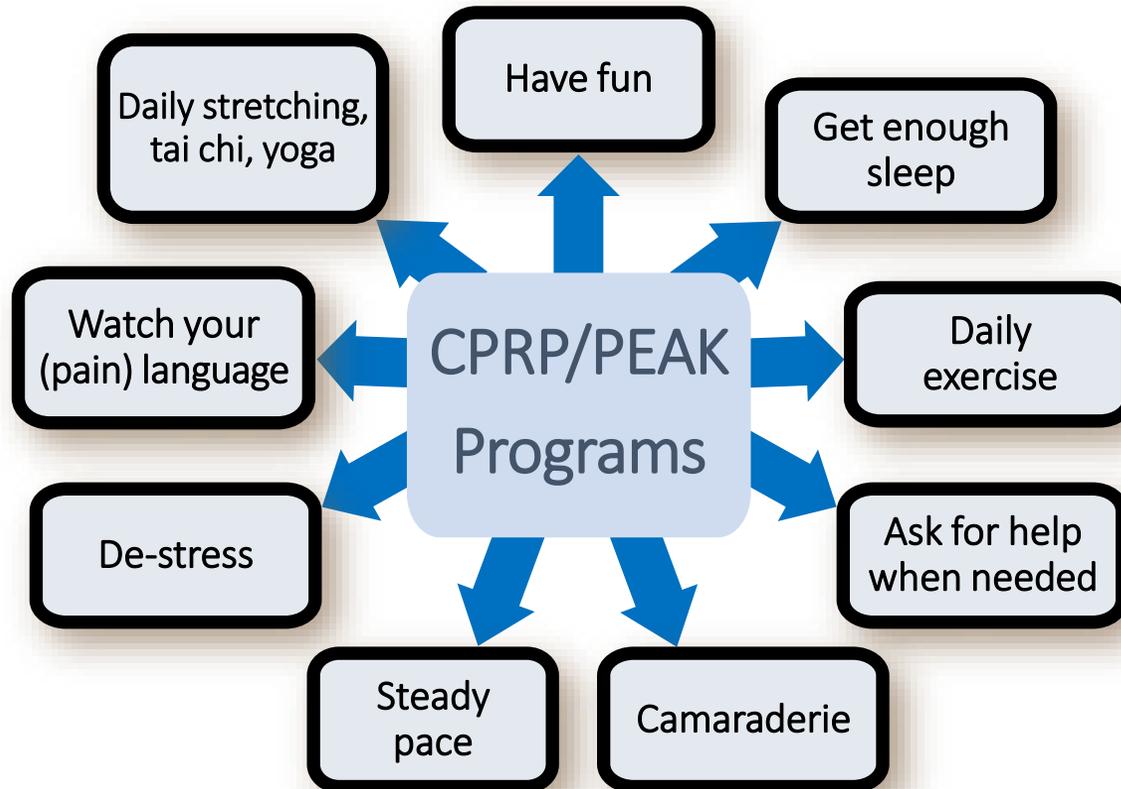
Grads

Weekly, ongoing, open access	Blend of individual, team, groups, families	Twice monthly, ongoing
<p>Educational and coping skills:</p> <ul style="list-style-type: none"> -Pain neuroscience education -Stress management -Motivational enhancement -Sleep skills -Nutrition and weight loss -Leisure and vocational education 	<ul style="list-style-type: none"> -Biopsychosocial, interdisciplinary, active rehabilitation -Pain Neuroscience Education -Mind-body movement -Behavioral pain management -Medical rehabilitation -Rehabilitation therapies: OT, VRT, KT, RT, DMT -Nutrition -Peer Champions -Family 	<p>Interdisciplinary, connection, generalizability, and extension of treatment topics</p> <ul style="list-style-type: none"> -Various team members lead -Topics selected in collaboration with Veterans
<p>Prepare for admission</p>	<p>Empowered with exercises, skills, techniques to improve quality of life</p> <ul style="list-style-type: none"> -Aligned with patient values and goals 	<p>Growth, maintenance, and relapse prevention</p>

Access: Expanding Reach

- ▣ National programs that accept national referrals = increased access to interdisciplinary programs
 - ▣ Many do not have a CARF or non-accredited pain program available locally
 - ▣ Partnering CPRP and PEAK to optimize patient success
 - ▣ Opening up pain rehabilitation to those with significant comorbidities, including Opioid Use Disorder

Connection and Active Engagement



The Team Makes The Dream

- ▣ Psychiatrist
- ▣ Nurse Practitioners
- ▣ Nurse Coordinator
- ▣ Occupational Therapy
- ▣ Pain Psychology
- ▣ Psychiatry
- ▣ Pharmacy
- ▣ Dietician
- ▣ Physical Therapy
- ▣ Recreational Therapy
- ▣ Social Work
- ▣ Vocational Rehabilitation
- ▣ Creative Arts Therapy
- ▣ Kinesiotherapy
- ▣ Yoga



Evidence = Outcomes Informed

Improvements

Mobility



Vitality

ADLs

Sleep

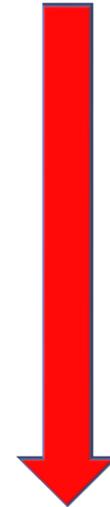
Reductions

Pain-related fear

Catastrophizing

Negative affect

Pain Intensity



Stakeholder Input

- ▣ Share with patients and adjust/reinforce work, share with providers to support generalizability



“The program really helped. I feel better able to manage the pain and have more of the quality of life I want.”



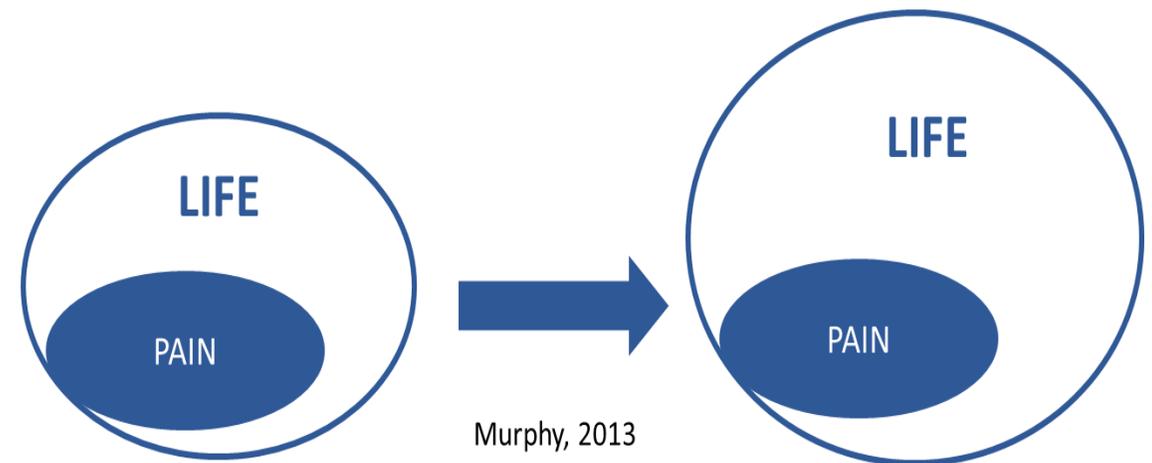
“It was well organized, good quality information, and reinforcement of skills/content. It’s helpful to know you’re not alone with the pain and to be around others with similar experiences.”



“Ms. P. made significant strides in your program, I can see a real difference. Thank you for all that your team does!”

Key Takeaways

- ▣ Whole person, biopsychosocial, active rehabilitation approaches are best suited for individuals with chronic pain syndrome
- ▣ Self-management and evidence-based skills, exercises, and techniques help patients achieve their goals and improve their lives
- ▣ Patients are empowered and life gets bigger



Questions?

