Treating Pain in Patients with PTSD

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Objectives

- Describe foundational information for chronic pain and PTSD
- Highlight conceptual similarities between chronic pain and PTSD
- Identify evidence-based treatment approaches that serve as a framework for treating these common comorbidities
Prevalence Individually

- **Pain**
  - Most common symptom reported to physicians
  - Up to 50% present with pain in primary care

- **PTSD**
  - General population, 6% males 12% females
  - Veterans
    - Up to 30% lifetime risk among Vietnam Veterans
    - Up to 17% among OEF/OIF/OND
Among those presenting for pain treatment, numbers varies but up to 40% have PTSD or significant PTSD symptomatology (per PCL)

Among those presenting for PTSD treatment, up to 75% report issues with chronic pain

Consistent support that presence of comorbid pain and PTSD worsens outcomes, prognosis
Interaction

- Compared to those with pain or PTSD, those who have both have:
  - Greater levels of functional interference and disability
  - More intense pain and elevated affective distress

- They also utilize greater healthcare services (Outcalt, 2013)
  - 7% more than pain only group
  - 46% more than PTSD only group
  - Higher rate of analgesics, benzos, antidepressants
    - More likely to receive opioids and at higher doses
Chronic Pain: Basics

- **Acute**
  - Less than 3 months
  - Diminishes as healing occurs
  - Cause usually knows, body’s response to injury
  - Is a symptom
  - Can expect resolution

- **Chronic**
  - More than 3 months
  - Persist beyond expected healing time
  - Cause may be known or unknown
  - Is a condition
  - Requires ongoing management
Biopsychosocial Model

- Complex interaction, pain beliefs develop over time
- Individual adjustment and reactions to pain impact emotional, behavioral, physical responses to pain
Chronic Pain Cycle

- Presence of persistence pain in absence of effective coping strategies leads to various negative consequences
- AVOIDANCE of people, places, things
  - Understandable but perpetuates cycle
Avoidance

- Not understanding the difference between hurt and harm often leads to avoidance of activities and movement.

- Avoidance leads to physical deconditioning (decreased strength/stamina/flexibility, weight gain, etc.), low mood, relationship issues, and more...

- If not avoiding may still be approaching activity in a non-paced, non-thoughtful way that also leads to adverse consequences.
Kinesiophobia

- The avoidance response has been termed *kinesiophobia*, or fear of movement.
- Many fear that increased movement will increase pain or cause physical damage/injury.
- Creates self-fulfilling cycle...
  - Not moving makes next attempt to engage in activity even more difficult and painful, reinforcing the fear, and increasing anxiety about moving again.
There are common factors that may mutually maintain chronic pain and PTSD

- Exaggerated attention to painful stimuli
- Avoidance as a means to cope
- Anxiety sensitivity
- Pain as trauma reminder
- Fatigue/lethargy
- Consequences/impact of otherwise-engaged cognitive demands on potential to adaptively cope

Sharp & Harvey, 2001
Peer-reviewed Conceptual Models

- Mutual Maintenance Model
  - Sharp & Harvey, 2001

- Shared Vulnerability Model
  - Asmundson et al, 2002

- Triple Vulnerability Model
  - Otis, Keane, Kerns, 2003

- Fear-Avoidance Model
  - Otis, Keane, Kerns, 2003; Bosco at al 2013
Mutual Maintenance Model

Sharp & Harvey, 2001

- Physiological, affective, and behavioral components of PTSD maintain or exacerbate pain-related symptoms PLUS

- Physiological, affective, and behavioral components of pain maintain or exacerbate PTSD
Mutual Maintenance Model

- Attentional and reasoning biases
- Anxiety sensitivity
- Reminders of the trauma [pain]
- Avoidance
- Depression / reduced activity
- Anxiety / increased pain perception
- Cognitive demand — limited coping

Pain <-> Disability

Distress

PTSD
Asmundson et al., 2002

Disposition to be fearful of arousal, have negative beliefs around

Anxiety sensitivity is predisposing factor for both

**ANXIETY SENSITIVITY**

- Individuals with a tendency to respond fearfully to physical [anxiety] symptoms
- Symptoms are misinterpreted as dangerous (i.e., *catastrophizing*)
- Emotional reaction is amplified
Triple Vulnerability Model

- Originally for anxiety in general then PTSD (Keane and Barlow, 2002)
- Applied to PTSD and pain (Otis, 2003)
- Individuals must present with a generalized biological and psychological vulnerability and specific psychological vulnerability
1) **Biological**
   → *Anxious temperament*

2) **Generalized Psychological**
   → External LOC / *uncontrollability* and *unpredictability* of adverse events

3) **Specific Psychological**
   → Anxiety conditioned to specific stimuli
Fear Avoidance Model

- Fear-avoidance models of chronic pain:
  - Recognize that beliefs that pain is a signal of damage and harm are erroneous
  - Related/reactive behaviors may impede functioning and rehabilitation
Emotional processing theory, (Foa & Kozak), posits development of chronic fear-based cognitive structures in PTSD that lead to maladaptive avoidance.

Foundation for PE

Fear structures, once adaptive, become maladaptive.
Fear Avoidance Model

- Pain and PTSD
  - Avoidance response was helpful in the acute phase as it maintained safety and individual integrity
  - While natural, chronic avoidance interferes with recovery, rehabilitation, quality of life
Fear Avoidance Model

- Hallmark of chronic pain and PTSD is chronic avoidance
- Quest to avoid aversive, uncomfortable stimuli
- Understandable in both cases but what was once productive is now harmful
- Contributes to maintenance of both
Impact of Chronic Avoidance

**Chronic Pain**
- Prevents engaging in and/or confronting situations and sensations that ultimately lead to increased strength, flexibility, more adaptive beliefs in terms of self-efficacy & agency
- **Functional implications:** Physical, social, emotional, cognitive, depleted self view, depleted sense of agency, etc.

**PTSD**
- Prevents confronting situations and memories that ultimately disconfirm maladaptive thoughts about self, others, the world
- **Functional implications:** Physical, social, emotional, cognitive, depleted self view, depleted sense of agency, etc.
Options

- Sequential
  - Treat one disorder first, then other

- Parallel
  - Treat both simultaneously, with different providers/teams
    - Downfall: Poor collaboration. Conflicting philosophies.

- Integrated
  - Treat both simultaneously through integrated treatment approach with same provider(s)/team
    - Optimal
Separate EBP Treatment

- Evidence-based approaches for both pain and PTSD

- **Prolonged Exposure** is optimal parallel for CBT for Chronic Pain, consistent philosophically
  - Goal is to process and face the feared/aversive stimuli

- Similar goal of **CBT-CP** – approach versus avoidance

- While combined is best, these approaches could potentially work together harmoniously with some shared philosophy
Cognitive Behavioral Therapy for Chronic Pain: Therapist Manual (Murphy et al., 2014)
- Available as PDF online
- Hard copies can be ordered on TMS
CBT-CP Sessions

- 1: Interview/Assessment
- 2: CBT-CP Orientation
- 3: Goal Planning
- 4: Exercise & Pacing
- 5: Relaxation
- 6: Pleasant Activities 1
- 7: Pleasant Activities 2
- 8: Cognitive Coping 1
- 9: Cognitive Coping 2
- 10: Sleep
- 11: Discharge Planning
- 12: Booster (optional)
The Goal of Treatment

- Life gets **BIGGER** so pain feels **SMALLER** by comparison
  - Teach patients to expand their lives and react to pain differently
  - Pain may stay the same
CONFRONTING the feared stimuli (trauma or increased pain) leads to improved functioning.

In chronic pain, one key way to overcome kinesiophobia is by exposure to feared aversive stimuli through gradual exposure to activities.

- CBT-CP has walking program incorporated.

Since this is a similar principle used PE, can be explained in similar way.

- May help provider as well as patient with some PE success.
Since per models there is overlap in causes, maintenance, and potential treatment approaches, using CBT-based intervention for both increases efficiency for all.

Less burden on patient, provider, system

Limited but some options in VA

Portland VA IMPPROVE, Dobscha

Tampa VA, Bosco, Clark

Boston VA, Otis, Keane
Portland IMPPROVE Research

- Intervention in Primary Care using collaborative care components and behavioral activation (BA) to treat comorbid chronic pain and PTSD
  - Plagge et al 2013, Pain Medicine
- Eval with physiatrist recs
- Up to 8 BA sessions
  - Flexible, goals/values focus
  - Education, activity schedule, coping skills
- Active 2010-2012
Tampa VA, Bosco and Clark

- Center for Post-Deployment Health and Education
- Integrated multidisciplinary treatment program
- Address pain, PTSD, mild cognitive complaints/PCS
- Groups, PT, psychiatrist, medical with NP
- Outcomes demonstrate improvement across domains
Six treatment areas
- Psychoeducation
- Hierarchy of avoided stimuli
- Intervention to reduce depression (mediator)
- Cognitive restructuring
- Correcting attentional biases
- Normalizing emotional and physiologic response
- PE individually as needed post group milieu
- Discontinued in mid-2016
Integrated Treatment for Pain and PTSD

Therapist and Patient Manual

12 sessions

In session 1, “five minute account of trauma”

Focus on thoughts and avoidance overall

Behavioral treatment goals

Traditional CBT basis

Constantly weaves together comorbidities throughout treatment
Otis and Keane: Sessions

- Education
- Making meaning
- Thoughts & feelings (cognitive errors)
- Cognitive restructuring
- Relaxation
- Avoidance & interoceptive exposure
- Pacing & pleasant activities
- Sleep hygiene
- Safety/trust
- Power/control/anger
- Esteem/intimacy
- Relapse prevention
Best Practices

- Use an integrated approach when possible

- Provide thorough evaluation and be aware of any substance use issues and suicidal ideation, particularly in this population, that may warrant attention first

- Encourage evidence-based approaches with cognitive behavioral framework

- Incorporate multiple disciplines and modalities for best outcomes such as PT, rec therapy, chaplain, and complementary options (e.g., yoga, meditation)


Thank You! Questions?

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