An Introduction to Chronic Pain in the Military and the Role of the Behavioral Health Provider

Center for Deployment Psychology

Disclaimer

The views expressed are those of the presenters and do not necessarily reflect the opinions of the Uniformed Services University of the Health Sciences, the Department of Defense, or the U.S. Government.

Learning Objectives

1. Discuss current theoretical models of chronic pain and how psychosocial factors can influence the outcome of chronic pain.

What is pain?

The International Association for the Study of Pain's widely used definition states:

"Pain is an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage."
Acute Pain

- Normal physiological response
- Enhances survival
- Warns of disease progression
- Prolonged acute pain can lead to changes in the tissue and CNS/PNS
- Management of acute pain can prevent the onset of physiological changes that lead to chronic pain

Chronic Pain

- Changes in the central nervous system
- Serves no apparent useful purpose

Chronic Pain in the USA

- 2010 cross-sectional survey of 27,035 adults
- Chronic pain present in 30.7%
  - “chronic, recurrent, or long-lasting pain lasting for at least 6 months”
- Prevalence higher for females (34%) than males (27%)

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Pain and the Military

- Chronic pain is the most common reason for OIF and OEF medical evacuation & medical boards across services
- 47% of new OIF/OEF vets report pain
- 48% of total veteran population reports pain
- Pain disorders account for the largest proportion of total compensation costs

OIF/OEF Medical Evacuations 2004-2007 (N = 34,006)

- Spinal Pain
- Psychiatric Diagnoses
- Neurological Disorders
- Combat Injury
- Musc.Skel./Conn. Tiss.
Rates of Return to Duty 2004-2007

Medically Evacuated Service Members Who Returned To Duty

- Neurological
- Spinal Pain
- Musc.Skel/Conn.Tiss
- Psychiatric disorders
- Combat Injuries

Cohen et al, 2010

Chronic Pain in OIF/OEF Troops

Anonymous 2008 survey of 2543 National Guard troops

- Any Pain
- Back Pain
- Joint Pain
- Moderate to Chronic Pain

Cohen et al, 2010

Chronic Pain in OIF/OEF Veterans

- OIF/OEF vets seen for first visit in VA hospital (n=793)
  - Mean age = 31 (range 19-55), 93% male
- 47% reported at least a mild level of pain
  - Most common site = back (46%)
  - Identifiable injury in 36% (no blast, GSW)
- 28% had moderate/severe pain (≥ 7/10)
- Majority had chronic pain

Anonymous, Clark, Massengale, & Walker, 2009

Chronic Pain in OIF/OEF Veterans

- Mean age = 32
  - 64% white
  - 11% black
  - 25% other
  - Men (n = 1038)
  - Women (n = 197)

Haskell et al, 2010

Military Risk Factors for Back Pain

- Heavy packs create shearing forces that cause low back pain
- Operational driving and flight (ATVs and rotary wing aircraft)
- Psychological risks of combat

Gironda, Clark, Massengale, & Walker, 2006

Chronic Pain in OIF/OEF Veterans

"I wanted [the pain] to go away so bad, 'cause I wasn't used to it...being constant, like a kid poking me in the back...all day long. It was annoying. It was just frustrating." (P24)

Matthias et al, 2014
“He likes to go four-wheeling. After a period of time it makes my back hurt 'cause you're... bouncing up and down. So he won't take me to do that because he thinks he's gonna hurt me. Or if I'm lifting something, he'll be like, oh no don't, you might hurt yourself. A lot of times I just keep my mouth shut.” (P20)

Matthias et al, 2014

Pain Issues Specific to the Military

• Military culture and training

• Physical fitness tests

• Loss of identity and community
• Escaping from distressing situation

Removal from mission & deployment

Theoretical Models of Chronic Pain

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U.S. Army photo by Visual Information Specialist Markus Rauchenberger /released Public Domain Image

Removal from mission & deployment

• Loss of identity and community
• Escaping from distressing situation

Theoretical Models of Chronic Pain

Removal from mission & deployment

• Loss of identity and community
• Escaping from distressing situation

Theoretical Models of Chronic Pain

Removal from mission & deployment

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Theoretical Models of Chronic Pain
Theories of Pain

Specificity Theory
- Level of pain = tissue damage

Biomedical Model
- Symptoms are either somatogenic or psychogenic
- Distress regarding pain seen as secondary condition that will vanish when pain is cured

The Gate Control Theory
Nerve “gate” in spinal cord controls level of pain signals that reach the brain

3 systems at work:
- Sensory-discriminative
- Motivational-affective
- Cognitive-evaluative

BioPsychoSocial Model

Biomedical Model

Biological

Social

Psychological

The Body-Self Neuromatrix

Neuromatrix

Endocrine, Immune, and Autonomic System Activity
Input from damaged nerves
CNS Plasticity
Attention
Psychosocial and Health Status Variables
Pain Perception
Pain Behavior

Psychological Factors in Chronic Pain Outcomes

Psychological Factors Predict Pain Outcomes
- Depression and anxiety
- Coping style
- Beliefs about pain, employers, medical system
- Fear-avoidance
- Traumatic life events
- Social support

- Transition from acute to chronic pain
- Return to work
- Levels of pain medication
- Outcome of lumbar surgery
Pain Screening Measures

Assessment Methods

- On a scale of 0 to 10 with 0 being no pain at all and 10 being the worst pain imaginable
  - Current, worst, least, usual pain
- Visual analog scales
  - Pain faces, line scales

Visual Analog Scales

Visual Analog Scale (VAS)*

- No pain
- Mild annoying pain
- Nuisance, completely tolerable pain
- Distressing, uncomfortable pain
- Intense, dreadful, horrible pain
- Worst possible, unendurable, excruciating pain

Defense and Veterans Pain Rating Scale

Defense and Veterans Pain Rating Scale

Overview of Cognitive-Behavioral Therapy Interventions for Chronic Pain
CBT for Chronic Pain

- Widely recognized components of Cognitive Behavioral Therapy (CBT) for pain
  - Psychoeducation
  - Relaxation
  - Activity modification
  - Behavioral activation
  - Sleep hygiene
  - Cognitive restructuring

CBT for Chronic Pain

- CBT for pain often also includes
  - Anger control techniques
  - Mindfulness
  - Biofeedback
  - Relationship interventions
  - Assertiveness training
  - Planning for setbacks

Problem coming up with a standard protocol that addresses needs of diverse population

Outcomes of CBT for Chronic Pain

- How do you measure outcome?
  - Disability
  - Mood
  - Pain level
  - Coping strategies
  - Observed pain behaviors

- Consider ongoing medical treatment

Multidisciplinary Pain Treatment

- Pain centers or clinics offering combined treatment with CBT plus medical and physical therapy interventions
- 2008 review (27 studies, 2047 patients), inpatient and outpatient centers, 4-15 weeks
  - Moderate-strong evidence for multidisciplinary care for low back pain and fibromyalgia compared to usual care
  - Mixed chronic pain patients did less well
  - Inpatient programs did moderately better than outpatient
  - No effect for duration of treatment or specific program components

Additional Training Opportunities

deploymentpsych.org

Features include:
- Descriptions and schedules of upcoming training events
- Blog updated daily with a range of relevant content
- Articles by subject matter experts related to deployment psychology, including PTSD, mTBI, depression, and insomnia
- Other resources and information for behavioral health providers
- Links to CDP’s Facebook page and Twitter feed

CDP Website: Deploymentpsych.org
Online Learning

The following online courses are located on the CDP website at:

http://www.deploymentpsych.org/content/online-courses

NOTE: All of these courses can be taken for free or for CE Credits for a fee

• Cognitive Processing Therapy (CPT) for PTSD in Veterans and Military Personnel (1.25 CE Credits)
• Prolonged Exposure Therapy for PTSD in Veterans and Military Personnel (1.25 CE Credits)
• Epidemiology of PTSD in Veterans: Working with Service Members and Veterans with PTSD (1.5 CE Credits)
• Provider Resiliency and Self-Care: An Ethical Issue (1 CE Credit)
• Military Cultural Competence (1.25 CE Credits)
• The Impact of Deployment and Combat Stress on Families and Children, Part 1 (2.25 CE Credits)
• The Impact of Deployment and Combat Stress on Families and Children, Part 2 (1.75 CE Credits)
• The Fundamentals of Traumatic Brain Injury (TBI) (1.5 CE Credits)
• Identification, Prevention, & Treatment of Suicidal Behavior in Service Members & Veterans (2.25 CE Credits)
• Depression in Service Members and Veterans (1.25 CE Credits)

All of these courses and several others are contained in the Serving Our Veterans Behavioral Health Certificate program, which also includes 30 hours of Continuing Education Credits for $350.

Provider Support

CDP’s “Provider Portal” is exclusively for individuals trained by the CDP in evidence-based psychotherapies (e.g., CPT, PE, and CBT-I).

Features include:

• Consultation message boards
• Hosted consultation calls
• Printable fact sheets, manuals, handouts, and other materials
• FAQs and one-on-one interaction with answers from SMEs
• Videos, webinars, and other multimedia training aids

Participants in CDP’s evidence-based training will automatically receive an email instructing them how to activate their user name and access the “Provider Portal” section at DeploymentPsych.org.

How to Contact Us

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