



Chronic Pain Therapies

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Topics to be Discussed

- › What is Pain?
 - Types of Pain
 - Pain Mechanisms
 - How do we measure Pain?
- › Delayed Recovery Factors leading to a chronic pain state
- › Treatment Approaches
 - Medication
 - Interventional & Surgery
 - Passive & Active
 - Complementary and Alternative Medicine (CAM)
 - Rehabilitation / Functional Restoration

https://www.theacpa.org/wp-content/uploads/2018/03/ACPA_Resource_Guide_2018-Final-v2.pdf

The Pain Puzzle

- › Complex clinical phenomenon
 - Chronic pain is never unidimensional
 - Never purely biological or solely psychological
- › Treatment is time consuming, frustrating and taxing to all
- › Approached differently depending on physician's education, training, and experience (and biases!)
- › Reacted to differently depending on the patient's physiology, psychological, social, educational and cultural variables

Scope & “Cost” of Chronic Pain

- › Estimated 1 in 4 Americans suffer from chronic pain
- › Billions yearly in health care costs and lost work productivity
- › Considerable human suffering
 - Individual
 - Significant others
- › Society loses
 - Loss of a productive member of society

What is Pain?

- › International Association for the Study of Pain (IASP)
 - "An unpleasant sensory and emotional experience which we primarily associate with tissue damage or describe in terms of such damage, or both"
- › Pain = combined sensory, emotional, and cognitive phenomenon

What is Chronic Pain?

- › Chronic pain is persistent or recurrent pain, lasting beyond the usual course of acute illness or injury, or more than 3 - 6 months, and adversely affecting the patient's well-being
- › Pain that continues when it should not

Pain Syndrome Type

› Acute

- Recent onset, transient, identifiable cause

› Chronic

- Persistent/Recurrent pain, beyond usual course of acute illness or injury
- May or May Not have identifiable cause

› Breakthrough

- Transient pain, severe or excruciating, over baseline of moderate pain

What is Acute Pain?

- › Physiologic response to tissue damage
- › Warning signals damage/danger
- › Helps locate problem source
- › Has biological value as a symptom
- › Responds to traditional medical model
- › Life temporarily disrupted (self limiting)
- › Emphasis on cure/resolution

What is Chronic Pain?

- › Difficult to diagnose & perplexing to treat
- › Subjective personal experience
- › Cannot be measured except by behavior
- › Originates from physical source but becomes the disease
- › It has no biological value as a symptom
- › Life permanently disrupted (relentless)
- › Traditional biomedical approach can be disastrous
- › Emphasis on management with a biopsychosocial approach

Poll Question

› The following is not true:

1. Acute pain is a physiologic response to tissue damage.
2. Chronic pain has biological value as a symptom.
3. With acute pain, the emphasis is on cure and resolution.
4. With chronic pain, the emphasis is on management.
5. Neuropathic pain is associated with nervous system injury.

Poll Question Answer

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Pain Classification by Mechanism

- › Nociceptive
- › Neuropathic
- › Central
- › Non-physiological (“psychogenic”)
 - Somatic Symptom Disorder (DSM- V)

How Do We "Measure" Pain?



Pain Intensity Rating Scales

- **Visual Analogue Scale (VAS)**

No pain ----- Worst possible pain

- **Numerical Rating Scale**

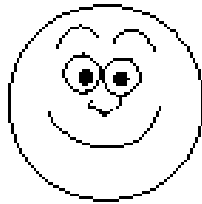
1 2 3 4 5 6 7 8 9 10
No pain Worst pain
imaginable

- **Categorical Scale**

None (0) Mild (1 – 4) Moderate (5 – 6) Severe (7 – 10)

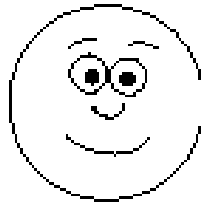
Pain Intensity Rating Scales

> Pain Faces Scale



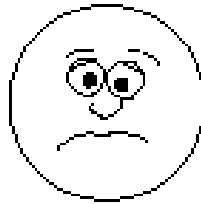
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No hurt



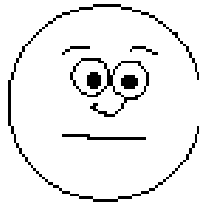
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Hurts just a little bit



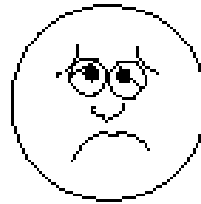
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Hurts a little bit more



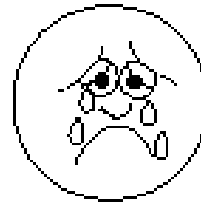
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Hurts even more



8

Hurts a whole lot



10

Hurts as much as you can imagine



Getting to Chronic Pain

- › Why and how do some become chronic pain patients?
- › How does a person with a problem become a patient with an illness?
Nortin Hadler, M.D

Biomedical Model

- › Explains pain through etiologic factors (e.g., injury) or disease whose pathophysiology results in pain
- › Cause →→ Effect
- › This classic biomedical approach to understanding and treating pain is incomplete

Biopsychosocial Model

- › Chronic pain affects the whole person
- › Recognizes that pain is ultimately the result of
 - Pathophysiology
 - Psychological state
 - Childhood and life experiences
 - Relationship/interactions with the environment
 - Workplace, home, disability system, and health care providers

Chronic Pain Medical Care

- › Important to get a sense of depth and breadth of person's past and ongoing life experiences and current social situation
- › What are the individual's beliefs about the cause, meaning, impact, expectation, perceptions and goals regarding the pain

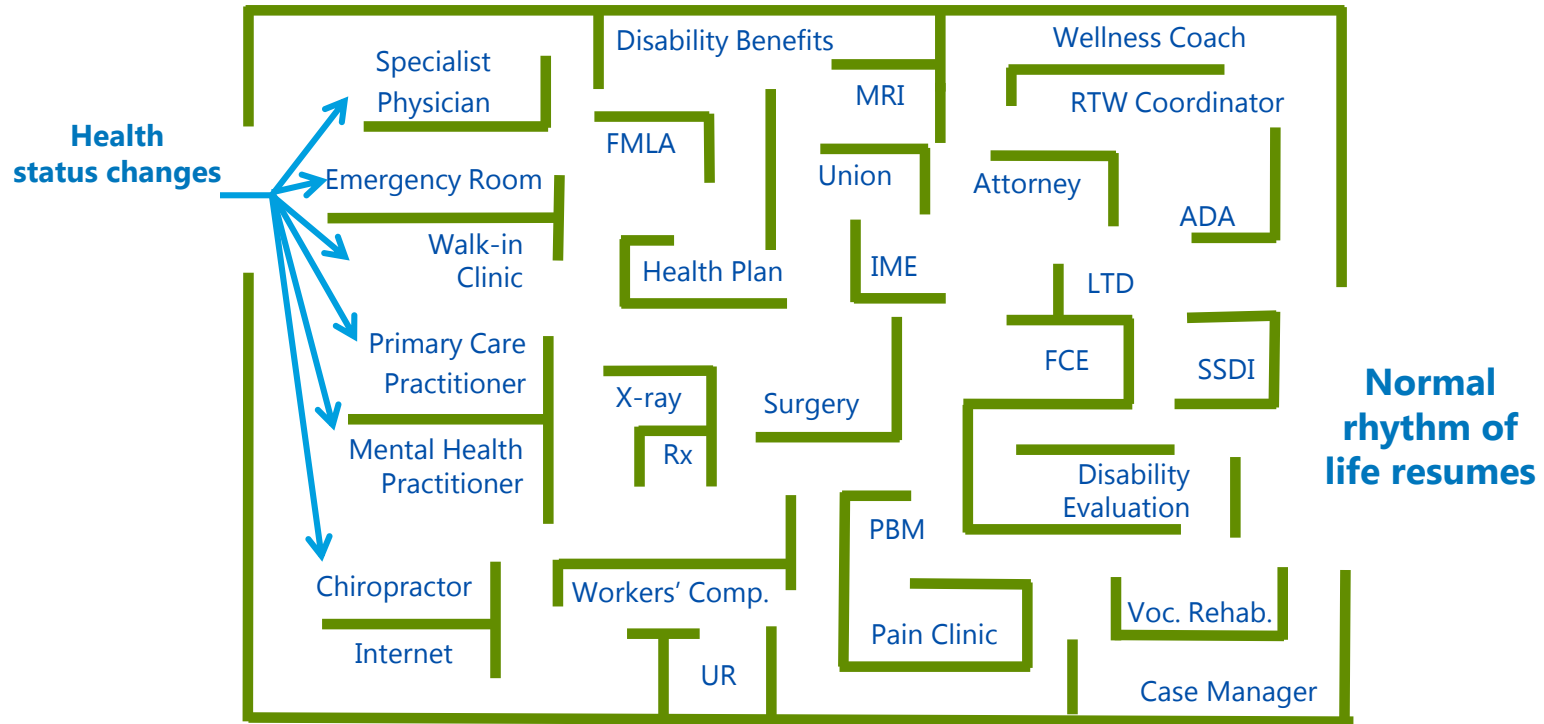
Sir William Osler (7/12/1849 – 12/29/1919)

- › The Father of Modern Medicine
- › The good physician treats the disease
- › The great physician treats the patient who has the disease
- › It is more important to know about the patient who has the disease than about the disease the patient has - SDF

Chronic Pain Treatment

- › Difficult for health care professionals
 - Chronic pain management not taught
 - Education actually teaches how to mismanage chronic pain
 - Medical care passive/biomedical (not active/biopsychosocial)
 - Patients over-medicated, over-treated and “medicalized”
- › Medical care fragmented
- › Incentives misaligned
- › Patients can be demanding, difficult and frustrating to treat
- › Payers suspicious of chronic pain treatment

Some people get lost in the maze



Poll Question

› Which of the following is not true?

1. The biomedical model explains injury and disease based on pathology.
2. The biopsychosocial model recognizes that pain is a result of both physical and nonphysical factors.
3. Teaching an understanding about chronic pain is a major part of current medical school curricula.
4. The best approach to evaluating and treating chronic pain is through evaluation of the whole person.
5. 1, 2, 4 & 5.

Poll Question Answer

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Characteristics Chronic Pain Patient

- › Inactivity, deconditioning & excessive down time
- › Anger, depression, despair and irritability are common
- › Somatic preoccupation & maladaptive beliefs
- › Drug overuse, misuse & dependency
- › Subjectives outweigh objectives – pain behavior
- › Functional decline, perceived disability & inability to work
- › Failure of medical care and continued medical cure seeking

Delayed Recovery

- › A distinct subpopulation of patients
- › Traditional treatment often not successful
- › Estimated 10% - 20% of cases, consume 80% - 90% of costs



Delayed Recovery

- › Largely preventable
- › Predictors have been identified

Predictors/Risk Factors for Delayed Recovery

- › History of substance misuse/abuse
- › Somatic preoccupation / Disability out of proportion objectives
- › High pain levels
- › Fear-avoidance / Poor coping skills
- › Maladaptive beliefs / Perceived injustice
- › Job dissatisfaction / Prolonged work absence
- › Psychosocial risk factors
 - Moderate to severe depression and/or anxiety
 - childhood abuse
 - Axis II disorders

Early Identification

- › Not responding to treatment
 - Medications
 - Therapies
 - Procedures
- › Risk factors for delayed recovery
- › Consider simple screening devices for delayed recovery risk
 - STarT Back Screening Tool (SBST)
 - Örebro Musculoskeletal Pain Questionnaire
 - The Pain Disability Questionnaire (PDQ)

Problem Solving: What Can We Do?

- › What can you do to help the individual get through the maze? Be aware of, and look for delayed recovery risk factors
- › Communication is #1
 - Listening
 - Demonstrate caring, concern and respect
- › Provide quality education and information
- › Make sure quality medical care is being provided
- › Follow-up and follow through

Poll Question

- › Which on the following are characteristics of chronic pain patients?
1. Inactivity, deconditioning & excessive down time
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Pain Treatment Strategies

- › Pharmacological (Medication)
- › Rehabilitative
- › Psychological
- › Complimentary, Alternative and Integrative Medicine
- › Interventional
- › Surgical

- › Biopsychosocial functional restoration approach

Medication Approaches

- › Non-opioid analgesics
 - acetaminophen & NSAIDs
- › Opioids
- › Antidepressants
- › Sedatives & tranquilizers
- › Anticonvulsants
- › Membrane stabilizers
- › Muscle Relaxants
- › Systemic Local Anesthetics
- › NMDA-receptor Antagonists
- › Topicals
- › Compounded medications

Opioids for Chronic Pain

- › Short-term use of opioids is rarely worrisome
- › Prolonged use increases the possibility of adverse reactions
 - daytime sleepiness
 - internal organ problems
 - poor coordination and balance (possibly leading to falls)
 - cognitive dysfunction with memory and concentration difficulties
 - behavioral changes, dependency and addiction
 - Overdose and death

Opioids

- › Select group benefits from opioids, with resultant pain reduction and improved physical and psychological functioning
- › Minimal side effects & show increased activity levels & less pain
- › Most do poorly with chronic opioid usage, experiencing tolerance and side effects, especially with escalating doses



Pain Treatment Strategies

› Rehabilitative

Pain Treatment Strategies

› Psychological

- Cognitive behavioral therapy (CBT)
- Anxiety and depression reduction
- Biofeedback
- Relaxation training
- Teaching stress reduction skills
- Mindfulness meditation
- Hypnosis



Pain Treatment Strategies

› Complimentary, Alternative and Integrative Medicine

Pain Treatment Strategies

› Interventional

- Blocks
- Injections
- Infusions
- Implanted devices
 - Spinal cord stimulator
 - Intrathecal therapies (“pain pumps”)

› Surgical procedures



Pain Treatment Strategies

- › Epidurals,
- › Medial branch and Facet blocks
- › Radiofrequency ablation or rhizotomy



Pain Treatment Strategies

- › Spinal Cord Stimulation (SCS)
 - Trial
 - Permanent implantation
- › Implanted Intrathecal Drug Delivery Systems (Pain Pumps)



Pain Treatment Strategies

- › Biopsychosocial functional restoration (FR) approaches

FR Chronic Pain Evaluation

- › Comprehensive multidisciplinary/interdisciplinary evaluations offers a means of developing an appropriate treatment plan
- › This can help identify factors which may prolong complaints of pain and disability despite traditional medical care
- › Such an evaluation can also identify who would benefit from a more structured and intensive functional restoration program

Functional Restoration Approach

- › Multidisciplinary / Interdisciplinary
- › Individualized
- › Educational
- › Functionally (not pain) oriented to reengage in home and work activities
 - Increased function associated with less pain
- › Locus of control shifts to individual

Physical Restorative Services

› Active & Functional

- Improved body mechanics
- Spine stabilization, stretching & strengthening
- Aerobic conditioning
- Aquatics therapy
- Tai Chi, Yoga, Qi Gong, etc.
- Flare-up management
- Self-directed fitness program

Psychological Treatment Approaches

- › Interventions to change perception/emotional response to pain
- › Acceptance / Reduce negative thought patterns
- › Cognitive restructuring, relaxation training, guided imagery, desensitization, & pacing
- › Anger management
- › Problem-solving skills training

Vocational Issues

- › Assess ability to return to gainful employment
 - Review transferable skills and job strengths
- › Identify & deal directly with problems such as pain behavior, lack of job seeking skills, poor self-concept, unrealistic goals, return to work fears, and lack of motivation
- › Focus on staying busy and functional

Q& A: Chronic Pain Therapies

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