OVERHAULING OUR PAIN PARADIGMS TO REDUCE OPIOID USE IN PRIMARY CARE

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Conflict of Interest and Financial Disclosure

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• Lecture honoraria from American Society of Interventional Pain Physicians, American Academy of Pain Medicine.

Objectives

• Assess why pain is a problem-child in the medical system
  • The heart-sink patient
• Understand accurate pain conceptualization
  • "I'm feeling pain" vs "I'm making pain"
• Overview 4PCP
  • Primary Practice Physician Program for Chronic Pain - Pain Specialist Collaboration for Community based Training and Support
Distinction: Acute vs. Chronic Pain

- **Acute Pain:**
  - The body's normal response to damage
  - Comes on fast, tends to resolve in a few days or weeks
  - Can become chronic when the cause is difficult to treat or misunderstood

- **Chronic Pain:**
  - Intractable pain that lasts three or more months
  - Does not respond to treatment
  - Is viewed as its own disease, a brain-based condition
  - Often can only be managed, not cured
  - Significantly affects quality of life, well-being, ability to function

Acute to Chronic Pain Shift

<table>
<thead>
<tr>
<th>Acute</th>
<th>Pain</th>
<th>Chronic</th>
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Locus of Control

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<tbody>
<tr>
<td>Invest vs. Lottery</td>
<td>Pain in my control vs. Pain out of my control</td>
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<tr>
<td>Rely on self vs. Rely on therapeutics</td>
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<tr>
<td>Internal Locus of Control</td>
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<tr>
<td>High Self-Efficacy</td>
<td>Low Self-Efficacy</td>
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Self-Efficacy

- Albert Bandura:
  - Confidence in one's ability to achieve intended results, to succeed in specific situations or accomplish a task.
  - Self-efficacy is developed from external experiences and self-perception and is influential in determining the capacity to achieve an outcome.
**Acute to Chronic Pain Shift**

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<tr>
<td>High</td>
<td>Self-Efficacy</td>
<td>Low</td>
</tr>
<tr>
<td>Active</td>
<td>Activity, Engagement</td>
<td>Passive</td>
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**Why is Chronic Pain Difficult?**

The Heart-Sink Patient

- **No Training**
  - Pain is a primary complaint in 30% of patients in a general practice
  - Average medical school spends 0-6 hours on pain teaching
  - IASP recommends 74 hours (Tauben DJ / Pain 2013)
  - Prion disease occurs in 1/1,000,000. 97% of general practitioners will never see a case in their lifetime.
  - Medical schools spend 3-4 hours on prion disease
- **Wrong Paradigm**
  - We say “I’m feeling pain”
  - We ought to say “I’m making pain”
Primary Care Physician Response to Chronic Pain

• “I’d rather be poked in the eye”
• 4PCP data: Least preferred population
  • Prefer to treat diabetes, terminal cancer, chronic cardiovascular problems, alcoholism
  • Dr. Parran describes chronic pain patients as “heart sink”

Chronic Pain Syndrome:
Characteristics of Patients Referred for University Pain Center / 4PCP Management

• Minor to moderate pathophysiology
• Moderate to severe pain complaints and behaviors
• Disrupted and fluctuating activity levels
• Sleep disturbance
• Anxiety and depression
• Excessive medication use and/or surgeries
• Disruption in vocational, social, familial and recreational activities

The Sensory Model of Pain
Challenges to the Sensory Model of Pain

• Asymptomatic pts. with radiographic evidence of structural abnormalities.

• Physical impairment, physical functioning, pain report, disability and response to rehabilitation are only modestly correlated.

Nociception ≠ Pain

• 1) Nociception is a signal
  • Nociception is information
  • Visual information also passed through neuronal signals

• 2) The pain experience attributes meaning
  • Pain signals the decision by the subconscious brain networks that this incoming signal is a serious threat.

Signal vs Meaning

Brain: “I know the answer, don’t confuse me with facts”
Pain vs Nociception

Feeling pain or Making pain?

- More activity in motor cortex in improving pelvic pain patients (Kutch 2017)
- Best site to stimulate brain for pain is MOTOR cortex, not sensory
- Pain is a brain DECISION, a brain OUTPUT, not an input

Our paradigm is wrong

- A multi-billion dollar pain industry is based on the idea of killing the messenger
- Pharmacology
  - Opioids
  - Anti-epileptics
  - Etc
- Devices
  - Stimulators: nerve, spinal cord, etc.
  - Pumps
  - Etc.
The right paradigm

- Let’s stop fiddling with the messenger and start dealing with the driver.
- For 20 years we have known that the only truly long-term beneficial approach (> 5 years impact) for chronic pain is the biopsychosocial rehabilitative approach (Okifuji & Turk, 1999).
- This makes complete sense – it is the only intervention that employs MOTOR systems.

Key features of biopsychosocial approach

- Active rehabilitative program with PT/OT.
- Cognitive behavior therapy
  - Reframes the problem as the brain sees it
  - Takes control away from pain (passive view) and puts control back to the person (active view)
  - Removes poor (typically passive) coping strategies
  - Replaces with active (effective) coping strategies

Summary of Concepts

- Medical schools and other practitioner schools address pain inadequately, especially given the number of patients we all see.
- This leads to a “heart-sink” response. Volume pressures exacerbate the need for quick fix.
- Our paradigm for understanding pain is incorrect.
  - We think “I feel pain”
  - We should think “I make pain”
- The rehabilitative approach provides the only long-term effective treatment & employs motor learning.
4PCP Program

The Primary Practice Physician Program for Chronic Pain (© 4PCP)

Outcomes of a Primary Physician—Pain Specialist Collaboration for Community-based Training and Support

Thom D. Cleek, MD* Robert L. Fischer, PhD† Jennifer B. Levin, PhD‡ Mark J. Chou, MD§ Joel R. Mamah, MD, and Jeffrey W. Jonas, PhD‡

- A collaborative program for adults with chronic pain
- Follow-up visit time dropped from 19 to 11 minutes
- Patient satisfaction increased

• Clin J Pain, 2013

4PCP Concepts

• Physician needs
  - Paradigm changing learning occurs with just-in-time (eg residency), not just-in-case (eg lecture) programs (Dowis, 1999)
  - Heart-sink just reflects lack of comfort and adequate training in biopsychosocial framework

• Patient needs
  - Robust patient education for paradigm shift
  - Interdisciplinary rehabilitative approach
  - CBT to learn to own their medical problems (not provider)

4PCP Methods

• We enrolled 36 physicians and 28 completed the study (others moved or changed practice)
• Each physician enrolled at least one patient, total of 40 patients.
4PCP Education

- Practitioners trained in the biopsychosocial framework
- All primary teaching occurred at the office on the practice’s own patients;
  - Two patient sessions
  - Two journal club sessions
- Two late pm conferences (4-6:30 pm with food)
- Lectures including opioid use by Dr. Ted Parran
- Exchange of experience and ideas across practitioners

4PCP Rehab Team

- A community team organized and made available to practitioners
- Administrative assistant cleared rehab with insurance
- Psychologist Jennifer Levin saw patients referred and billed insurance
- Consistent PT/OT
- Weekly patient conference with team including MD, lasting 5' discussing patient progress & engagement

Patient Outcomes - Pain

<table>
<thead>
<tr>
<th>Treatment Group</th>
<th>All Cases (n = 84)</th>
<th>P (Baseline vs. Postintervention)</th>
<th>Effect Size</th>
<th>Clinically Significant Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Postintervention</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>McGill Pain Inventory</td>
<td>28.0 25.3 14.7</td>
<td>0.000***</td>
<td>1.05</td>
<td>On the basis of effect size</td>
</tr>
<tr>
<td>Affective Pain Index</td>
<td>15.6 17.6 14.5</td>
<td>0.000***</td>
<td>1.05</td>
<td></td>
</tr>
<tr>
<td>Pain vs last 24 h (0-30)</td>
<td>6.7 7.2 5.6</td>
<td>0.000***</td>
<td>0.75</td>
<td>1.7</td>
</tr>
<tr>
<td>Back Depression Inventory</td>
<td>15.2 21.0 15.6</td>
<td>0.017</td>
<td>0.25</td>
<td>3.4</td>
</tr>
</tbody>
</table>

**P-value indicates statistical significance.**
Lectures provided to all participants by Ted Parran, addiction medicine specialist
As a result of 4PCP, physicians tapered opioids on about 9 patients per practitioner
Opioids dropped to about 5-10% of patients by MD report, though we did not quantitate directly.

Scalability of intervention
Physicians had trouble identifying patients
They do not "bin" patients with pain as they do patients with asthma, CHF, etc, probably reflecting training
Insurance paid for half of psychology services
Physician time availability
Current Proposal Objectives

• Fundamentally change primary care physicians’ paradigm of pain physiology and their approach to pain.
• Provide community resources of PT coupled with internet-delivered CBT
• Mentor physician champions to pioneer this program in their own practices, using video content to insure program fidelity across sites, and to provide enduring materials.
• Show that this program:
  • Reduces opioid prescriptions for pain
  • Improves patient outcomes
  • Improves practitioner satisfaction with care rendered.

THANK YOU