

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

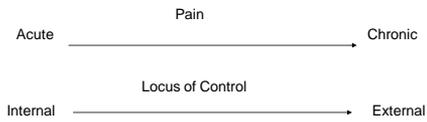
Distinction: Acute vs. Chronic Pain

- **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



Acute to Chronic Pain Shift



Locus of Control



Acute to Chronic Pain Shift



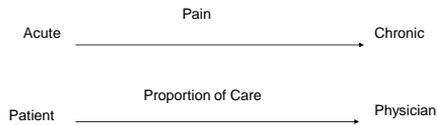
Self-Efficacy

- 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



Acute to Chronic Pain Shift



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 D J 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"

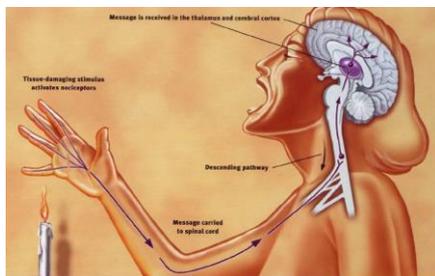
Primary Care Physician Response to Chronic Pain

- "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

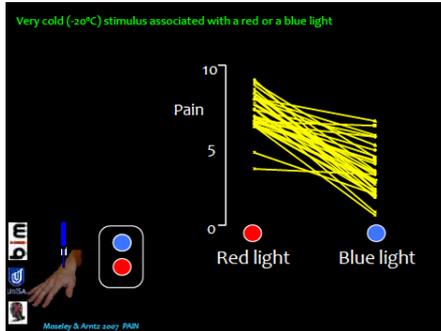
- 1) Nociception is a **signal**
 - Nociception is information
 - Visual information also passed through neuronal signals
- 2) The pain experience attributes **meaning**
 - Pain signals **the decision** by the subconscious brain networks that this incoming signal is a serious threat.

Signal vs Meaning

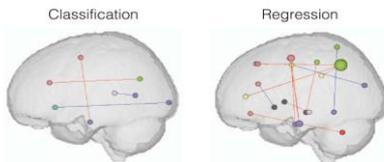
Brain: "I know the answer, don't confuse me with facts"



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

Thomas C. Chelmsky, MD, Robert L. Fischer, PhD,† Jennifer B. Levin, PhD,‡
Mark I. Cheren, EdD,§ Sybil K. Marsh, MD,|| and Jeffrey W. Janata, 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 (Davis, 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

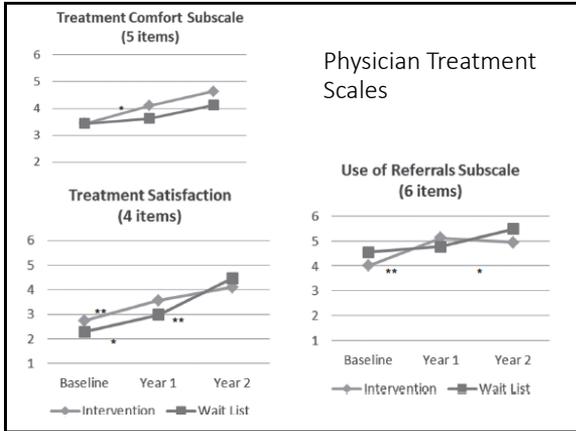
4PCP Rehab Team

- 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 4. Patient Symptoms at Baseline and Postintervention

	Treatment Group (n = 40)			P (Baseline vs. Postintervention)	Effect Size	Clinically Significant Change
	All Cases (n = 104) Baseline	Year 1	Year 2			
McGill Pain Inventory ^{22,32} Total score (0-45)	20.8	23.3	14.7	0.001**	1.01	8.6 On the basis of effect size
Sensory Pain Index (0-33)	15.8	17.8	11.3	0.001**	1.05	
Affective Pain Index (0-12)	5.3	6.0	3.6	0.001**	0.76	
Pain in last 24h (0-10) ²⁹	6.7	7.2	5.6	0.000**	0.73	≥ 1.7
Pain now (0-10)	6.3	6.8	5.2	0.000**	0.68	≥ 1.7
Beck Depression Inventory II ^{33,34}	19.5	21.0	15.6	0.012*	0.55	≥ 5



Opioid Usage

- 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.

4PCP Challenges

- 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
