

IMPROVE (Improving Pain-Related Outcomes for Veterans) QUERI Program

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Poll Question

- Who is in the audience? (check all that apply)
 - Implementation science experience
 - Clinical research experience, but no implementation science experience
 - Clinician
 - Operational partner working with a QUERI program

Outline of Presentation

- What is the IMPROVE QUERI program?
- Rationale for focus on Chronic Pain
- Implementation Science Brief
- Three Projects:
 - PACT-Integrated Pain Support (PIPS)
 - Co-operative Pain Education and Self-Management (COPES)
 - Academic Detailing Quality Improvement (AD QI)

What is the IMPROVE QUERI
Program?

Overall IMPROVE QUERI Impact Goal

Improve safe and effective pain management through partnered implementation of personalized, proactive, patient-centered interventions that optimize access to care.

Partner-Based Program

- National Pain Management Program Office
- Pharmacy Benefits Management
- Primary Care Services
- VISN 21, Academic Detailing Program

Key Ties to Blueprint for Excellence

- Strategy 7h – *“rapidly translate research findings and evidence-based treatment into clinical practice”*
- Strategy 6 – *“advance health care that is personalized, proactive, and patient driven, and engages and inspires Veterans to their highest possible level health and well-being”*
- Strategy 2b – *advance care in line with six aims set forth by the Institute of Medicine*

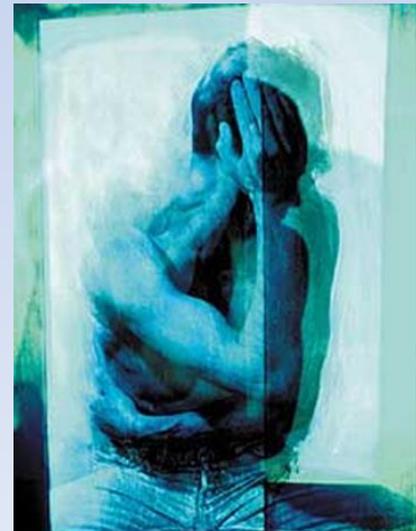
Key Ties to Blueprint for Excellence

- Strategy 3b – *leverage information technologies and analytics to optimize individual and population health outcomes...*
- Strategy 3e – *enhance delivery of patient-centered care for Veterans in rural areas, and those who are homebound or otherwise isolated through telehealth technologies*

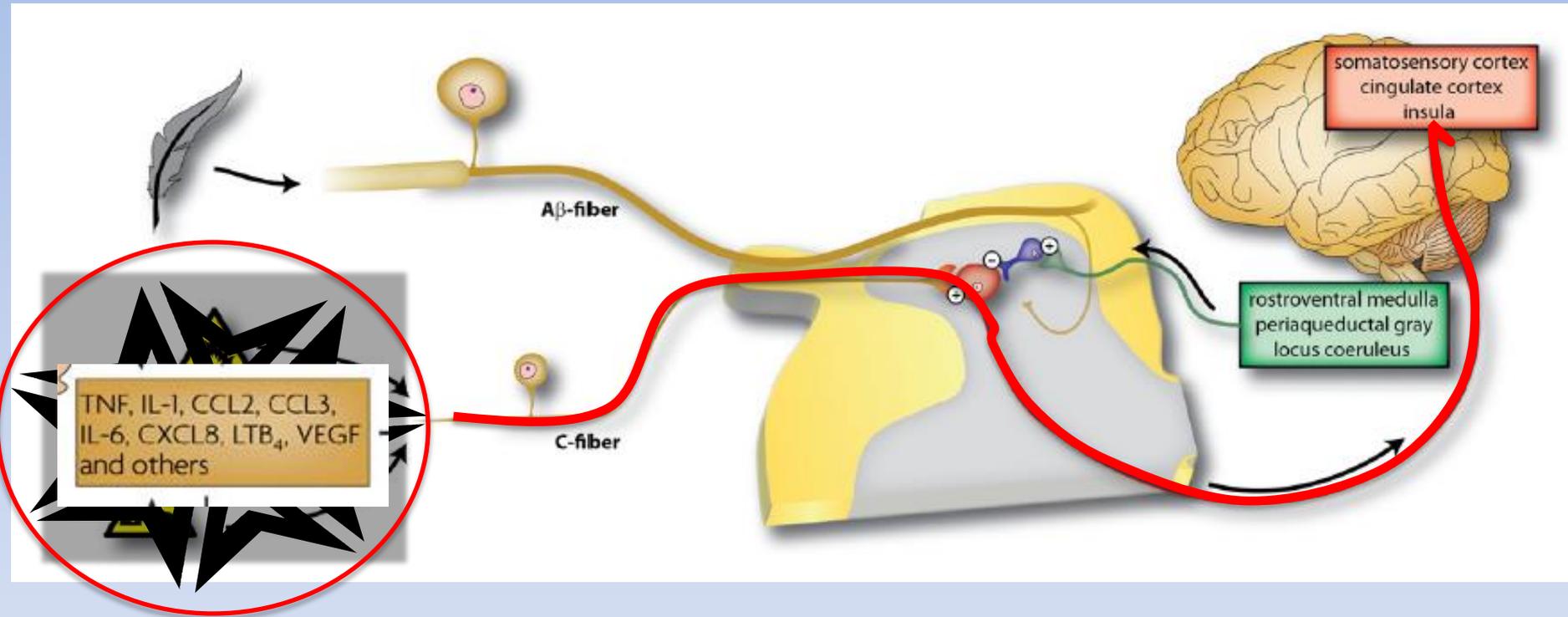
Rationale for Focus on Chronic Pain

Chronic pain: ubiquitous and costly

- Point prevalence: 25% in U.S. adults; 10% with disabling chronic pain that limits work and family activity
- Second most common reason for outpatient visits
- Annual national economic cost estimated up to \$635 billion
- Prevalence among Veterans may be even higher:
 - Higher rates of trauma
 - More joint stress



Chronic pain



Chronic pain: neuronal plasticity and central sensitization

Neuronal plasticity

Peripheral nerve injury → recruitment of macrophages and glial cells → dysregulated nerve regeneration of c-fibers

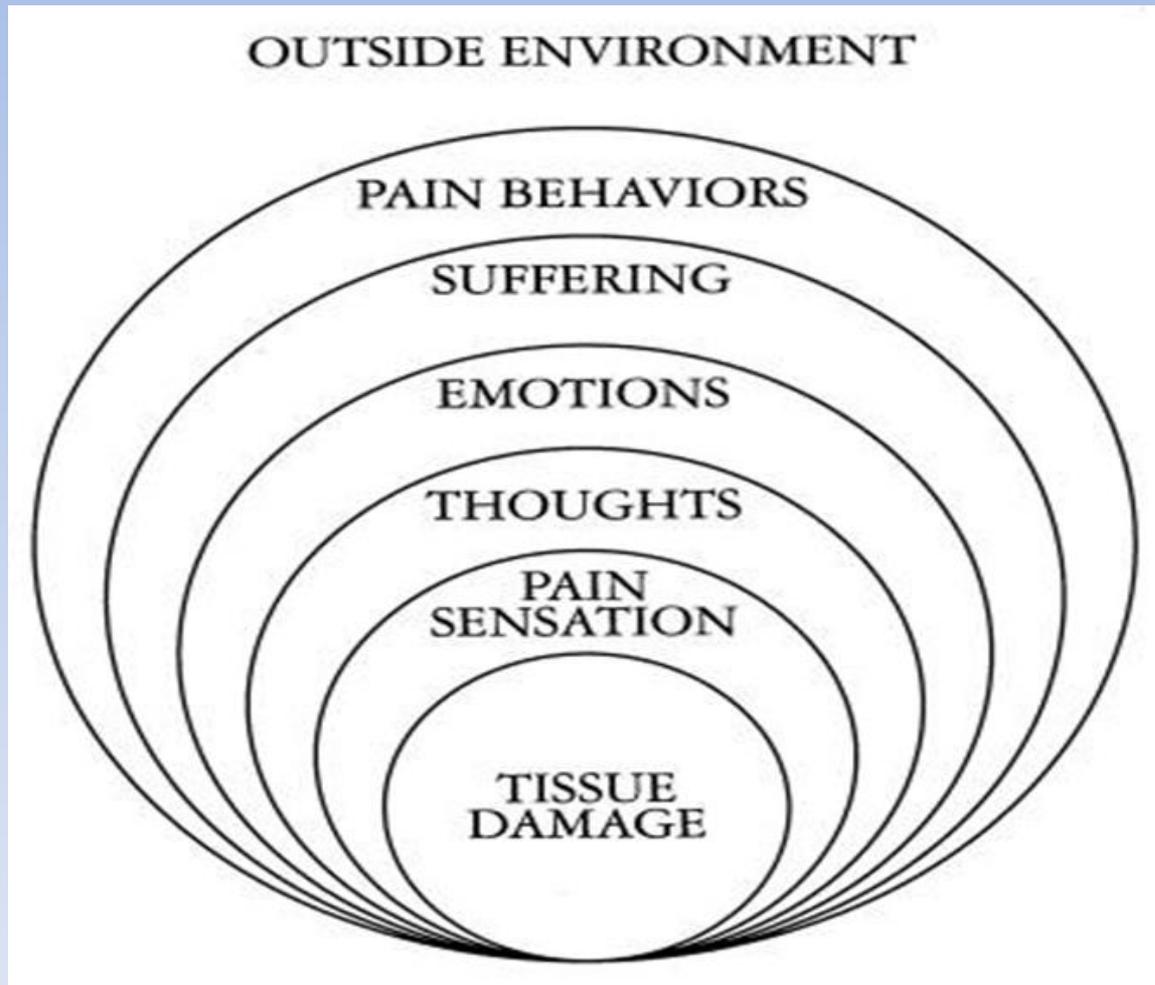


Central sensitization

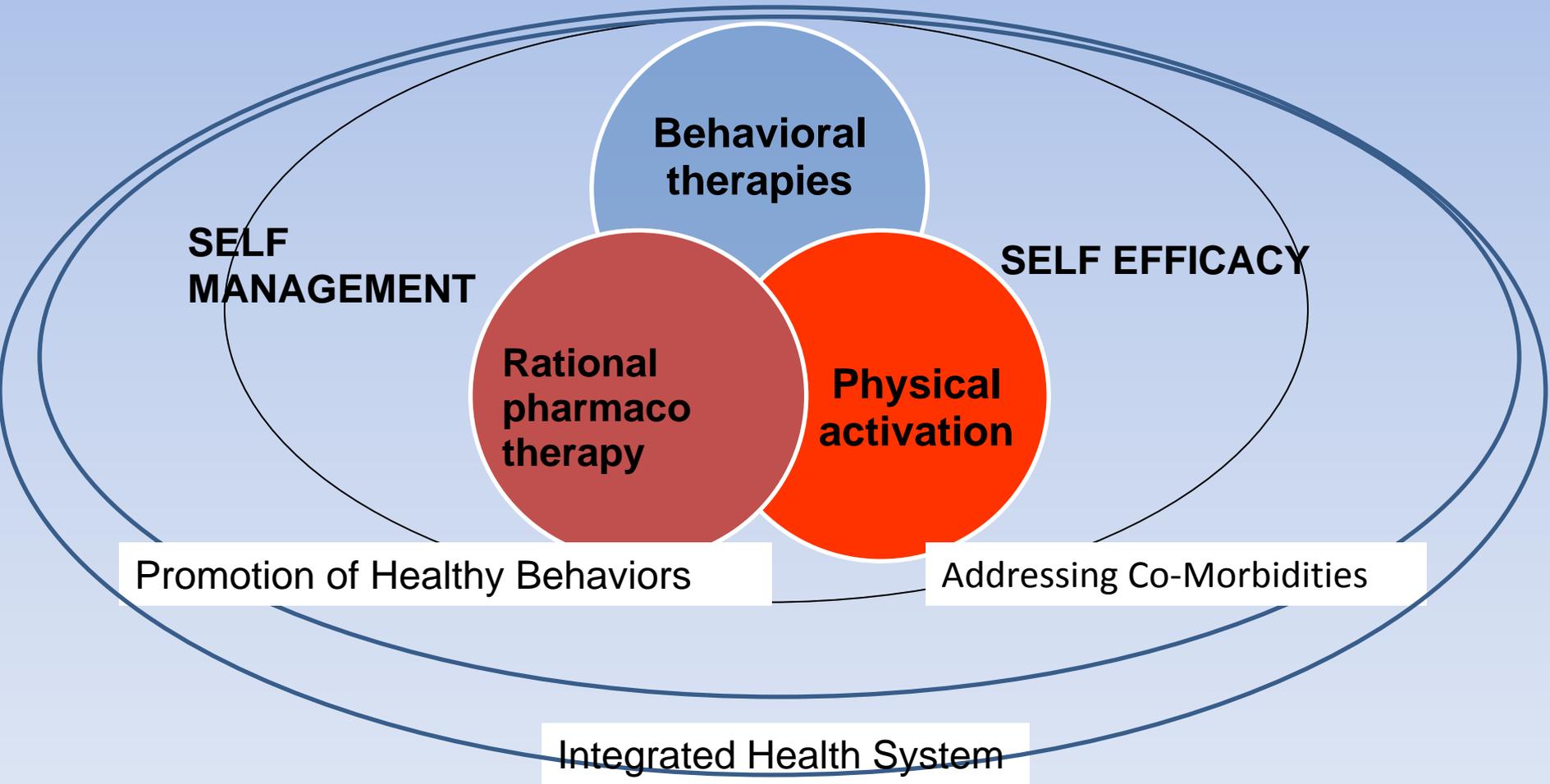
Excess of c-fibers in dorsal horn → lowered pain thresholds



Complexity of chronic pain



Evidenced-based approach to chronic pain treatment



Challenges to delivering effective treatment

- To whom does pain belong?
- Health systems incentivize low value treatments
- Population health underemphasized
- Cultural bias towards pharmacotherapy
- Inadequate provider education

Quick Poll: Are these barriers in your setting?

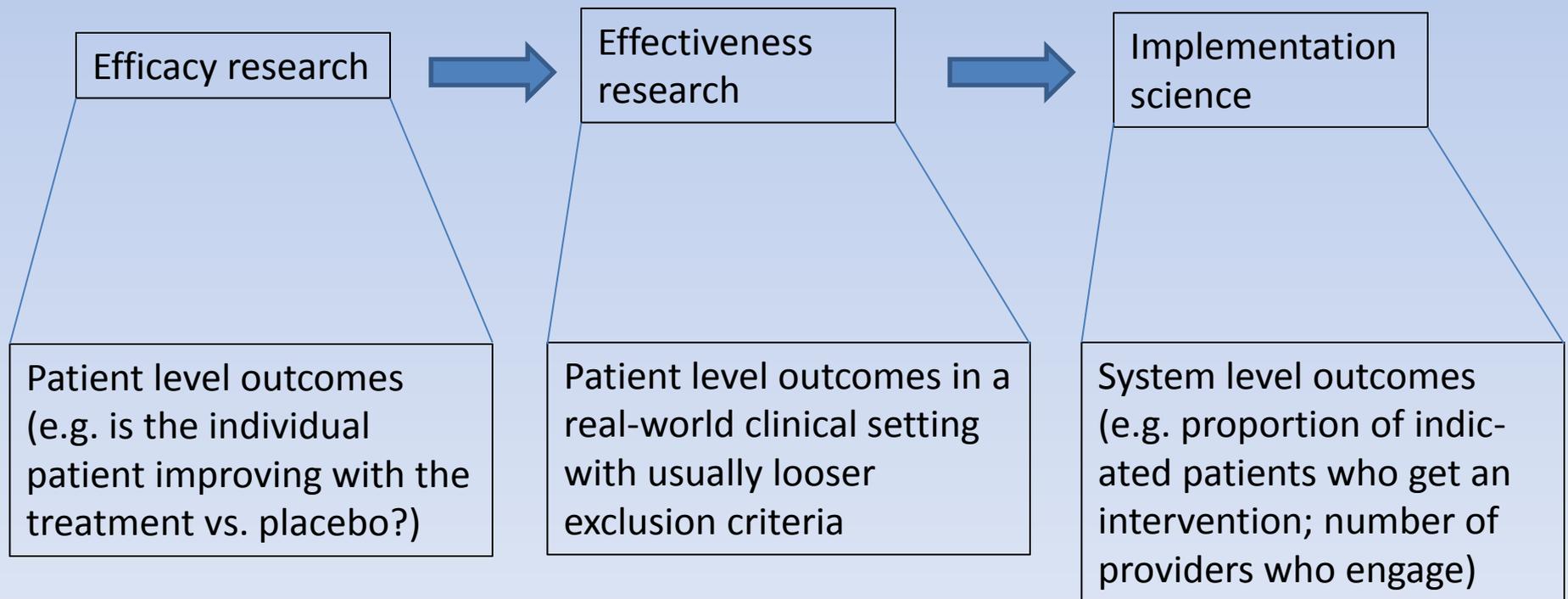
- To whom does pain belong? →
- Health system incentivizes low value treatments →
- Population health underemphasized →
- Cultural bias towards pharmacotherapy →
- Inadequate provider education →

YES	NO

Implementation Science Brief

Implementation Science

Methods to improve uptake of evidence-based clinical practices



Implementation science terms

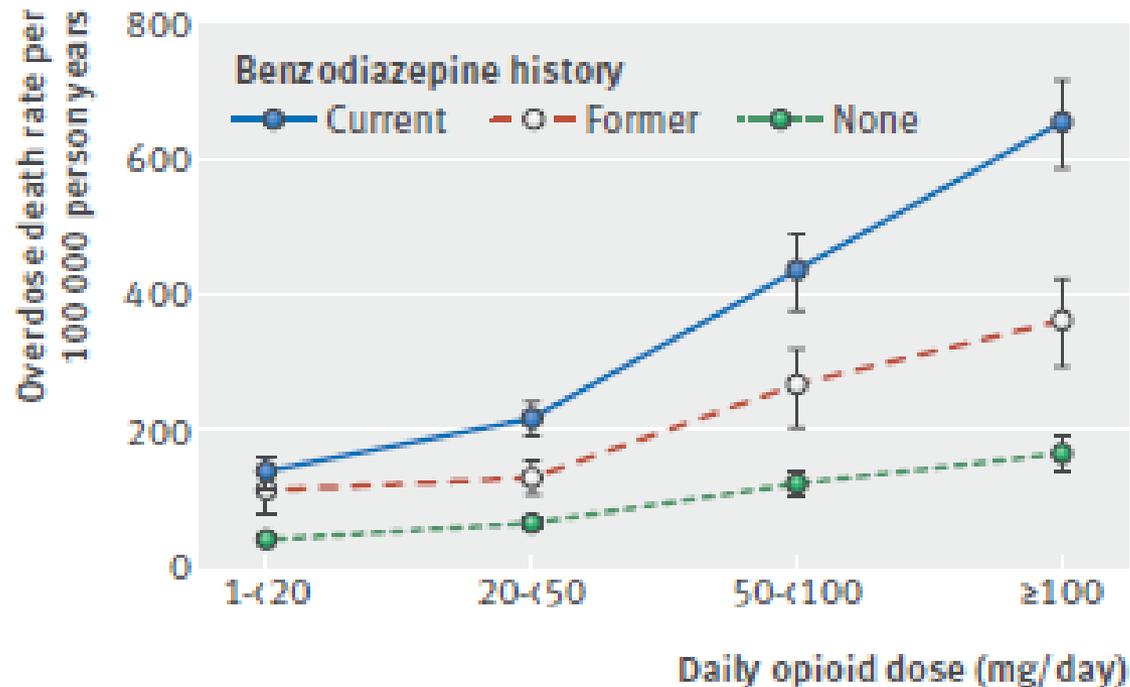
- Framework → the overall conceptual model for how various factors contribute towards successful implementation
- Strategy → the method by which implementation will be attempted, composed of:
 - Implementation interventions/tools → specific methods for how implementation will be facilitated (e.g. “audit and feedback”)
- Hybrid design → Implementation project that considers patient level outcomes AND system level outcomes; tests the effectiveness of the implementation strategy but also the effectiveness of the clinical intervention itself.

Three Projects

- Two, multi-year projects
 - PACT-Integrated Pain Support (PIPS)
 - Co-operative Pain Education and Self-Management (COPES)
- One, one-year, quality improvement project
 - Evaluation of VISN 21 academic detailing intervention

PACT-Integrated Pain Support (PIPS)

Treatment-related harm



Unadjusted death rates for drug overdose by benzodiazepine prescription history and daily opioid dose. Error bars represent 95% confidence intervals. Unadjusted overdose death rates are estimates for entire source population

Opioids for chronic pain: important limitations

- Central sensitization—driver of much of chronic pain--may not be responsive to long-term opioids; long-term efficacy data is modest
- Opioids may initially “work” but the body adapts to them, necessitating higher doses.
- Higher doses long-term → increased risk of toxicity/adverse effects, both acute (e.g. trauma, overdose) and chronic (opioid-induced hyperalgesia, osteoporosis, hypogonadism).
- Are “responders” mostly benefitting from treatment of emotional distress, for which better/safer treatments exist?

Policy/Operations Context

- Broadly speaking, Opioid Safety Initiative (OSI) aims to
 - Increase safety monitoring (urine drug testing, SIC)
 - Reduce high-dose opioids
 - Reduce opioid/BZD combination
 - Increase access/uptake of non-pharmacological treatment modalities (NPMs)
 - *While* preserving robust pain outcomes and patient-system alliance
- While safety-driven and well-intentioned, without implementation strategies, facilities may struggle to comply

What we heard from Veterans about Pain Care

- Sometimes feel like:
 - No one's listening
 - Approach isn't coordinated
- Would value:
 - More frequent contact
 - Easy access for questions/concerns
 - Coordinated approach

What we heard from Primary Care Providers about Pain Care

Barriers:

- This is a lot of work/strained resources
- Hard to coordinate care
- Tapering conversation/implementation is difficult
- Patients are resistant to non-opioid treatments

Facilitators:

- Special-focus team
- Multi-pronged effort to didn't put all the weight on PACT

PIPS Project

- Three-site, Hybrid III type effectiveness-implementation study:
 - Decrease the proportion of Veterans on high-risk medication regimens for chronic non-cancer pain
 - Preserve (or improve) functional status
 - Increase the proportion of these Veterans using NPMs
 - Preserve therapeutic alliance
- Indicated patients: Veterans on either > 100 mg MEDD or combination opioid/BZD therapy

Clinical Intervention

- A) Direct-to-Veteran mailing regarding the program and its goals (modeled after Tannenbaum et al. 2014)
- B) Primary care provider use of a pharmacy consult template to identify medication tapering goals and preferred NPM(s) with the Veteran
- C) Pharmacist delivery of 12-week structured follow-up to facilitate adherence to planned tapers and initiation and sustained engagement with NPMs

Implementation Strategy

- Blended facilitation with external facilitator:
 - Identifying local champions;
 - Academic detailing;
 - Automated case-finding;
 - Audit and feedback;
 - Targeted educational booster sessions to primary care providers and pharmacists.

Evaluation

- Four-stage formative evaluation to modify/improve the implementation strategy
- Interrupted time series to examine:
 - Proportion of eligible patients who transition to safer medication regimens.
 - Number of non-pharmacologic pain treatment sessions attended.
 - Patient satisfaction/pain-related functional outcomes.

Early lessons

- West Haven without clinical resources to commit to the project
- Adaptation already happening:
 - Nurse Case Manager/Care Manager instead of Pharmacist at one site
 - Use of the “PharmD” tool for patient tracking/chronic disease management
 - Heavier reliance on tele-visits instead of face to face at one site



Co-PIs

Alicia Heapy PhD and John Piette PhD

CBT to Manage Pain

- IOM Report called for a “cultural transformation”
 - Promoting and enabling self-management for all persons with pain
 - Encouraging strategies for reducing barriers to care
- Cognitive behavioral therapy (CBT) for chronic pain has been shown to reduce pain, disability and distress.
- CBT is often inaccessible to Veterans
 - multiple in-person visits
 - highly trained staff
- Technology-assisted CBT can address barriers

Co-operative Pain Education and Self-Management: COPES

- Randomized non-inferiority trial of interactive voice response (IVR)-based CBT versus in person CBT for chronic low back pain
 - First trial to use IVR only to deliver self-management treatment for chronic pain.
 - Compares a technology-assisted intervention to face to face treatment



Hypotheses

- Veterans with chronic low back pain receiving IVR-CBT will demonstrate outcomes that are not unacceptably worse than in person CBT in
 - Pain intensity
 - Physical and emotional functioning
 - Health-related quality of life
 - Sleep
 - Treatment dropout rates, skill practice, call adherence, satisfaction ratings and treatment credibility ratings

General Treatment Structure

- Ten-week treatment
- Introduction, eight pain coping skills, and pain flare prevention
- Pedometer facilitated walking component
- Weekly treatment goals
 - Practice pain management skill
 - Increase steps +10% over prior week's average
 - Planned productive, social, or pleasant activity
- Daily IVR call
- Weekly feedback

Treatment Differences

F:F

- Therapist teaches skills
- Free choice goal developed with therapist
- Therapist feedback delivered in session
- No extra IVR features available

IVR

- Handbook/IVR teaches skills
- Free choice goal developed independently
- Pre-recorded personalized therapist feedback via IVR
- Extra IVR system features
 - Messages
 - Peer testimonials, tips and explanation of skills
 - Veteran Helpline

COPES Preliminary Findings

- CBT delivered via IVR leads to patient-centered outcomes that are no less effective than (not inferior to) standard VA approaches in which CBT is delivered in-person by a therapist.
- Veterans in both conditions demonstrated significant improvements in pain intensity, pain-related disability, physical activity and sleep at post-treatment.
- No improvement in depressive symptoms in either condition
- Veterans in the IVR-CBT condition attended more sessions and were less likely to drop out of treatment than those in the in-person CBT condition.

COPES Implementation

- Three-site, stepped wedge, Hybrid III type effectiveness-implementation study to:
 - Evaluate the effectiveness of a facilitation-based implementation strategy versus standard rollout
 - Evaluate the efficacy of COPES for patients with chronic low back pain
- Specifically target patients receiving care at community-based outpatient clinics (CBOCs)

Implementation Strategy

- Blended facilitation with external facilitator:
 - Identifying local champions
 - Automated case-finding and direct patient outreach
 - Audit and feedback
 - Adaptation of COPES
 - Marketing and educational outreach
 - Academic detailing

Poll

- Based on your clinical experience, what are some reasons that patients may not engage in CBT for pain?
 1. They do not think it would be helpful
 2. They would have difficulty traveling for appointments or making time for appointments
 3. Providers do not encourage or suggest it
 4. They prefer pharmacologic and interventional over behavioral treatments
 5. Most patients manage their pain well without CBT

Evaluation

- Four-stage formative evaluation to modify/improve the implementation strategy
- Examine implementation outcomes
 - Proportion of eligible patients who enroll in COPES
 - Number of provider referrals to COPES
- Examine pain-relevant outcomes
 - Physical functioning
 - Pain intensity
 - Physical activity

What we hope to accomplish

- Identify overall and site-specific barriers and facilitators that influence the implementation of COPES
- Identify patient-reported barriers to engaging in pain self-management interventions
- Identify provider-reported barriers to incorporating pain self-management interventions into care
- Collaborate with our partners in the National Pain Management Program Office and Primary Care Operations to use actionable information from this study to inform care and policy decisions.

Academic Detailing Quality Improvement (AD QI)

Background

- Opioid Safety Initiative (OSI) Memo, 2014
- One useful strategy to OSI goals - Academic Detailing (AD)
 - March 27, 2015 issued by Interim USH
- Pharmacy Benefits Management (PBM), VISN 21 AD program

Key Partners & Project Team Members

- VISN 21 Academic Detailing Program
 - Jan Carmichael, PharmD
 - Diana Higgins, PharmD
 - Amy Furman, PharmD
- National Pharmacy Benefits Management
 - Virginia Torrise, PharmD (National PBM Deputy Chief Consultant)
- Team Members:
 - Randy Gale, DrPH; Justina Wu, MPH; Leonore Okwara, MPH

Aims of this QI Project

- **Specific Aim 1:** Evaluate VISN 21 Pharmacy Benefit Management's (PBM) academic detailing intervention targeting safe and effective opioid prescribing practices in line with the OSI through key informant qualitative interviews with high- and low-performing academic detailers and providers.
- **Specific Aim 2:** Disseminate best practices and key lessons to VISN 21 PBM and National PBM partners.
- **Specific Aim 3:** Identify low-performing sites and clinicians in VISN 21 and nationally, prioritizing assistance to local VISN 21 PBM operational partners in conducting targeted outreach based on findings from Aim 1.

Anticipated Impact

- Improve pain-related outcomes for patients
- Providers experience increased self-efficacy in caring for patients

Key IMPROVE QUERI Program Contributors

- Implementation Core
 - Steve Martino, PhD
 - Sarah Krein, RN, PhD
- Key Co-Investigators
 - Bob Kerns, PhD
 - Matthew Bair, MD, MS
 - Michael Saenger, MD, PhD
 - Joe Frank, MD, MPH
 - Diana Higgins, PhD