



**Personalized Activated Care & Training**

# **Self Management Strategies and an Integrated Approach for Pain Management**

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# Disclosure Information



None

No investigational use of medications

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# Chronic Pain = & Addiction

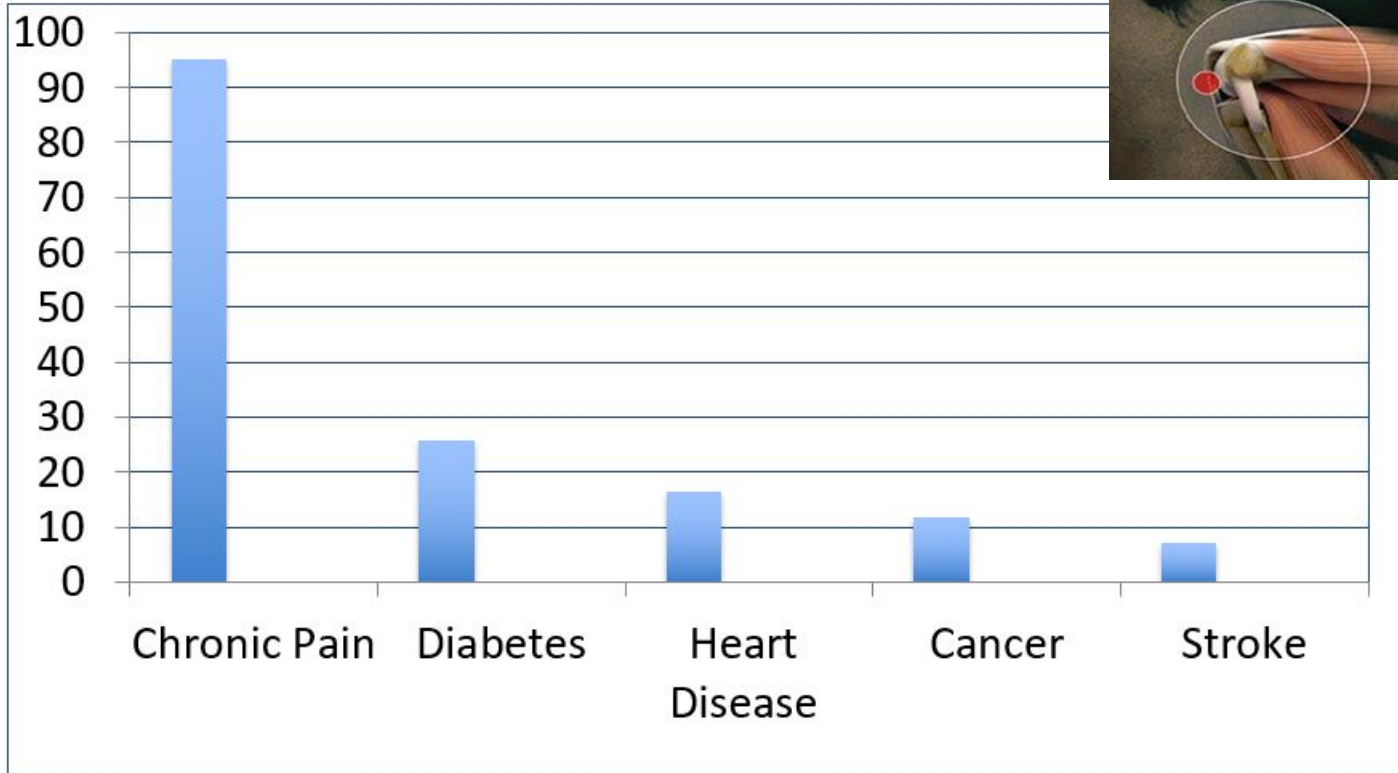
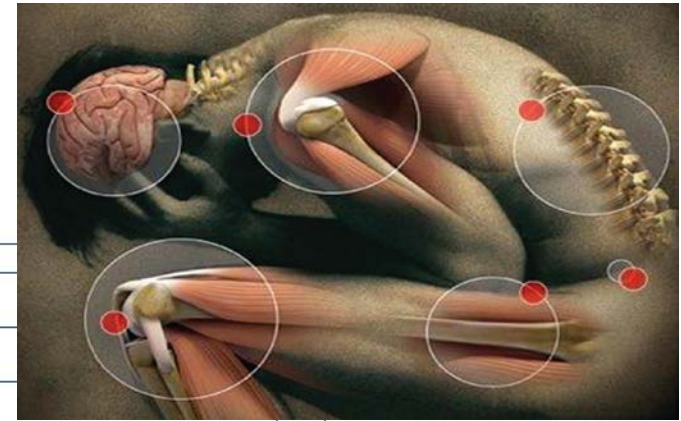


**#1 reason  
people seek  
care**

**67%**  
**of all visits**

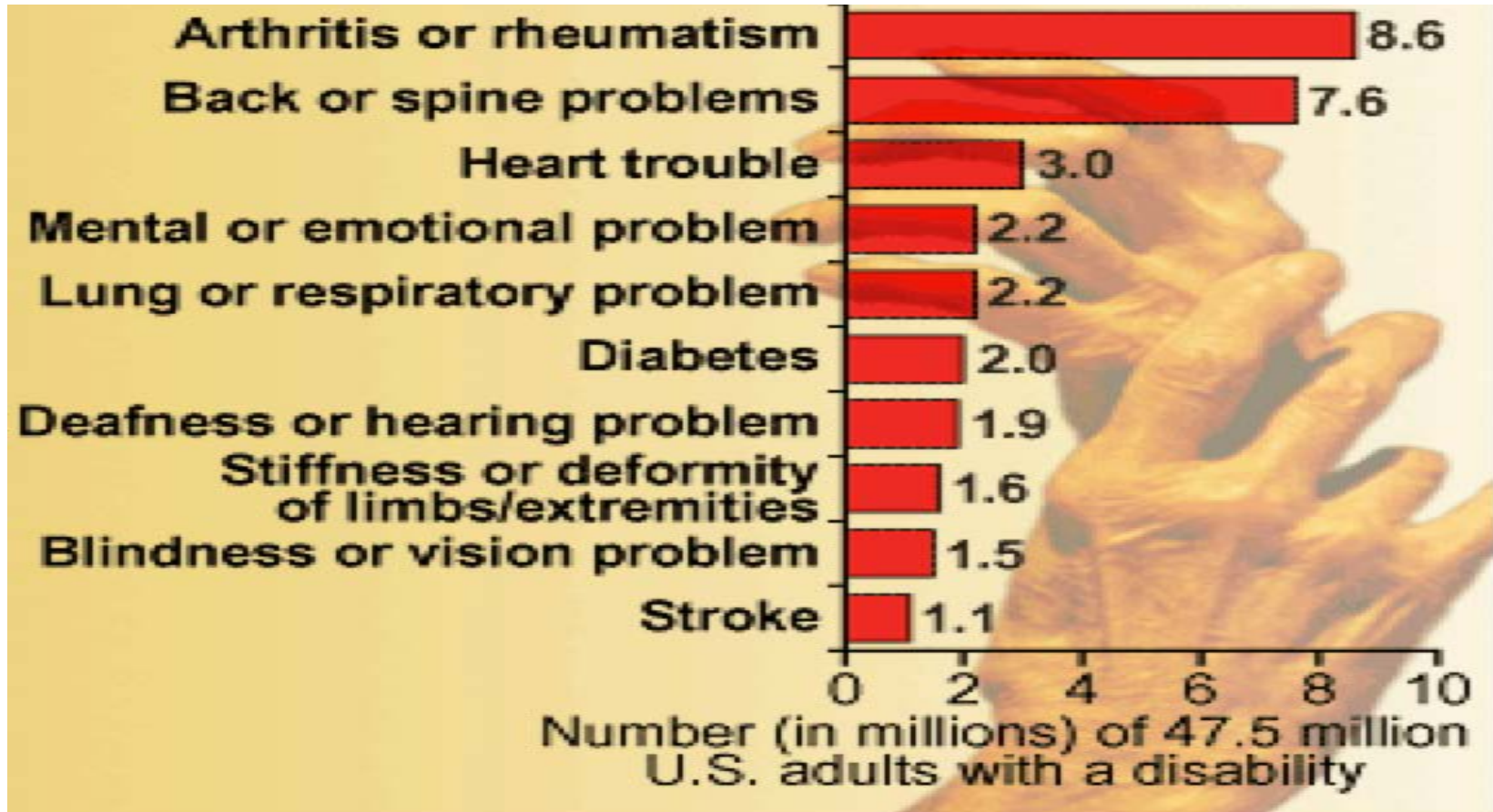


# The most common chronic condition



Figures in millions of people from the Institute of Medicine of The National Academies and the American Diabetes, Heart and Cancer Associations

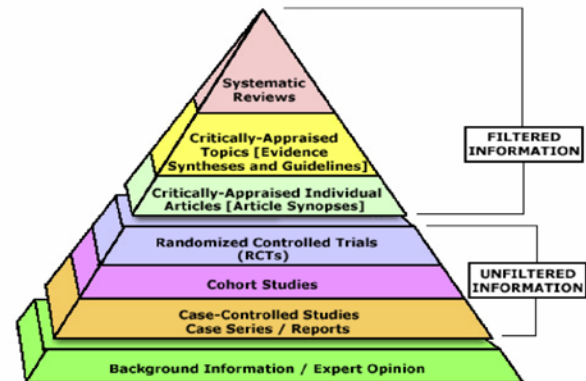
# #1 Cause of Disability



# How well do pain treatments work?

Systematic reviews of RCTs for...

- ✓ Physical therapy & chiropractic
- ✓ Cognitive-Behavioral treatments
- ✓ Psychological treatments
- ✓ Splints and orthotics
- ✓ Medications including opioids (oral & topical)
- ✓ Injections and nerve blocks
- ✓ Surgery and implants



# Systematic reviews show...



Almost every treatment works about 10 to 20% above placebo...



Almost every treatment works about 10 to 20% above placebo...

but only short-term

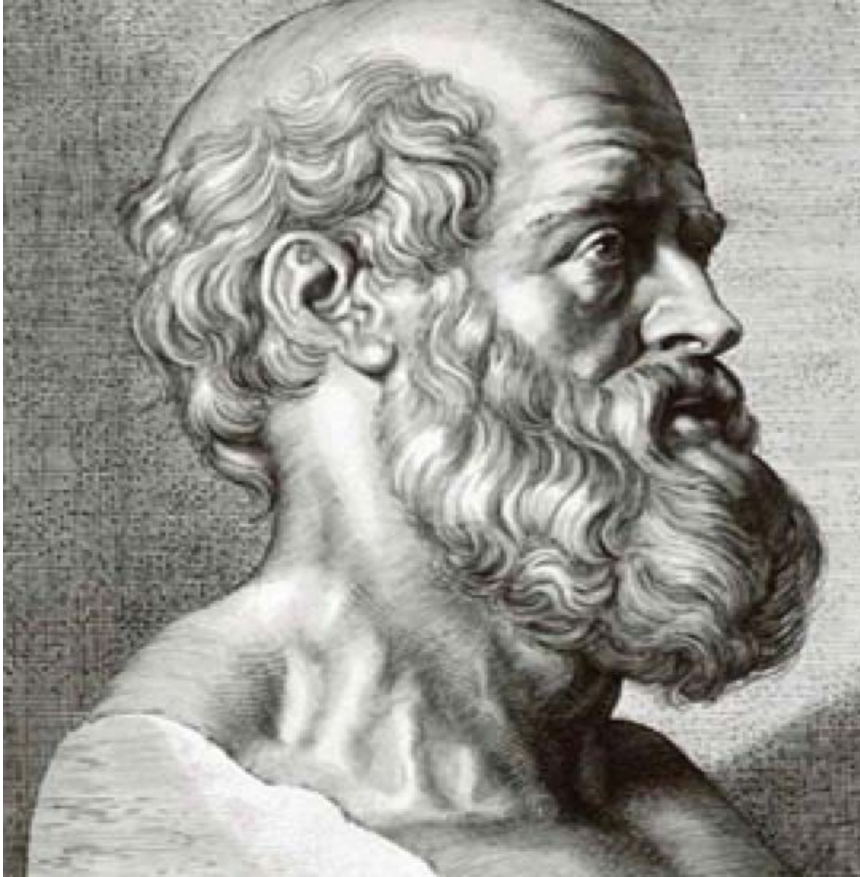




## Delayed recovery is common

- Over half of individuals with pain conditions at 1 month still have pain 5 years later
- Many of these patients continue to seek care for their pain years after onset
- Failed treatment and delayed recovery is often due to many physical, behavioral, and psychosocial risk factors that are not addressed

# Consider ancient wisdom...



“It is more important to know what kind of person has a disease than to know what kind of disease a person has.”

-Hippocrates  
(384 BC to 322 BC)



## Risk Factor (causes)

Characteristic, condition, or behavior, such as poor sleep, diet, stress or smoking, that increases the possibility of illness, injury, pain (sensitization).



## Protective Factor (cures)

Characteristic, condition, or behavior, such as exercise or healthy diet, that prevents or reduces vulnerability to developing an illness and pain.

# How do risk factors increase pain?

**Body**



**Injury, strain,  
& inflammation**

**Nerves &  
Spinal  
cord**



**Wind-up &  
convergence**

**Brain**



**Central  
Sensitization**

# Studies of Risk and protective factors for chronic pain



*Body*

e.g. fitness, range of motion, posture, strength, injury

*Lifestyle*

e.g. diet, sleep, activity level, pacing, sitting, strain, work activity, substance use

*Emotions*

e.g. anxiety/calm, depression/happiness, anger/peace, guilt/shame

*Spirit*

e.g. direction/ burned out, hope/ hopeless, stress, self-compassion

*Society*

e.g. harmony with others, social connection/ support, stress, secondary gain/ recovery rewards

*Mind*

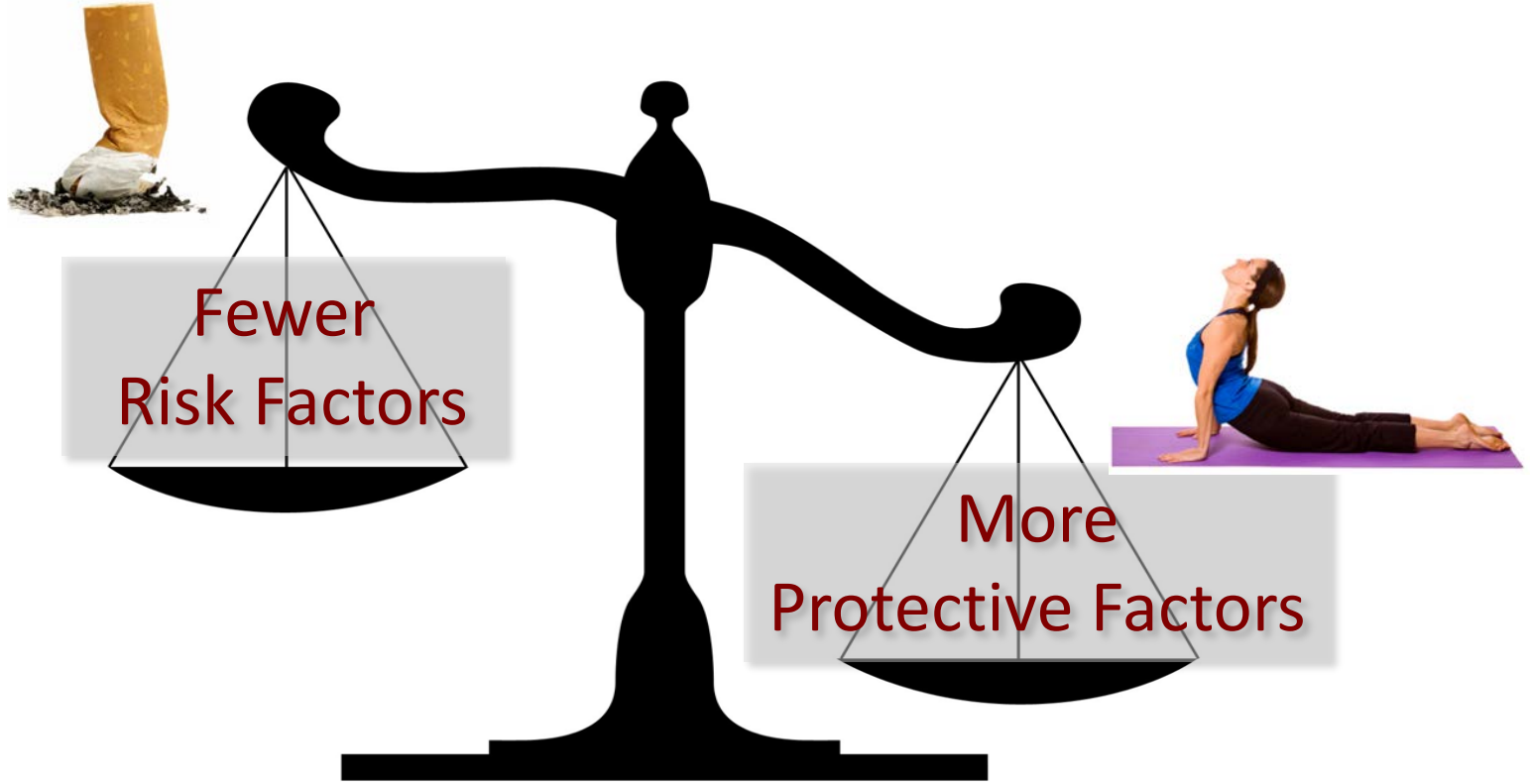
e.g. optimism/ pessimism, understanding, expectation, self-efficacy, resilience, coping

*Environment*

e.g. safe, clean, infection-free, organized, orderly, adverse event-free, accident-free



# Recovery Principle



# New Model of Transformative Care

**Treat** as usual with medications, therapy, surgery, and others

**Train** patients in self-management to reduce risk and boost protective factors

**Team** with health coach to support patient change



Transform the patient and the health care system

# *Preventing Chronic Pain*



## **Transformative Care is a rare TRIPLE WIN!**

- Better quality of care
- Better outcomes of care
- Lower cost of care

**-Institute for Healthcare Improvement**



# The Problem

Self-management is neglected in routine care due to...

- ✓ Not part of biomedical model
- ✓ Inadequate time to “train” patients
- ✓ Lack of reimbursement
- ✓ Healthcare reform and regulation by health plans
- ✓ Tedious electronic health record charting
- ✓ Inadequate training of health professionals



**Massive Open On-line Course**

*Preventing Chronic Pain:  
A Human Systems Approach*



**MOOC**



[www.Coursera.org](http://www.Coursera.org)

# Participant Ratings (n=771)

**95%** very good to excellent lesson quality

**93%** changed their life

**85%** changed their care

“Absolutely fascinating and enlightening...This information should be part of every health care educational program!”

“This course has really helped me to understand myself better and why I think, act and see the world as I do.”

“I am eternally grateful for taking the time and energy to provide this beacon of knowledge to the world.”

“I think this course is a wonderful gift...pain is an avoidable part of our lives.”





**Personalized Activated Care & Training**

- ✓ Self-management training tools
- ✓ Personalized based on risk factors
- ✓ On-line access anywhere anytime
- ✓ Tele-health coaching
- ✓ Goal is to improve outcomes of treatment and relieve pain long-term



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# 32 on-line training tools...



- ✓ **Understand pain:** Conditions, causes, treatments, self-management
- ✓ **Body tools:** Stretching, exercise, posture, reducing strain
- ✓ **Lifestyle tools:** Diet, sleep, substance use, and activity level
- ✓ **Emotion tools:** Anxiety, depression, anger, and shame
- ✓ **Mind Tools:** Optimism, self-efficacy, expectations, resilience
- ✓ **Spirit tools:** Purpose, self-compassion, hopefulness, grit and determination
- ✓ **Social tools:** Belonging, social support, work well-being, social stressors
- ✓ **Environment tools:** Safe living, hygiene, pollution-free, and minimizing risk

# Each PACT tool includes...

- ✓ Pain and Risk Assessment
- ✓ Personalized CBT training to reduce risk factors & strengthen protective actions
- ✓ Personal stories of real people
- ✓ Daily action plan (habits, pauses, calming)
- ✓ Documenting outcomes
- ✓ Overcoming barriers



# Engaging staff present material



Professor Payne



Action Annie



Calming Kate



Barrier Bob





# Take a PAUSE

**P**ause **A**ssess **U**nderstand **S**tart **N**ew **E**njoy moment

Studies of...

Mindfulness practice

Posture & strain awareness

Substance use

Emotional awareness

Social support



= Excellent results

# Practice CALMING

Calming **A**ctions **L**ighten the **M**ind

Studies of...

Meditation

Biofeedback/ relaxation

Self-hypnosis

Emotional calming




= Excellent results

# Health Coach & Support Team

- ✓ Support self-management
- ✓ Tele-health coach visits
- ✓ Family & friends support
- ✓ Improve adherence
- ✓ Achieve goals



 = Excellent results

# Resources to Enhance Engagement

- ✓ Smart phone app
- ✓ Worksheets
- ✓ Action plans
- ✓ Daily logs
- ✓ Precautions
- ✓ Seeking care



# Measure Engagement & Outcomes



## My Dashboard

Name: testpact2 pacttest2  
, 53  
Work: Employed fulltime  
Education: College  
Disability: No  
Readiness to change score: 7.6

Worst pain (0-10): jaw pain is 9  
Second worst pain (0-10): temple headaches is 8  
Third worst pain (0-10): neck pain is 9  
Other pains include: Jaw, Temple, Back of Neck, Low Back, Hip Joint  
Other symptoms include: Sleep problems  
Amount of past health care (0-10): 2.0

Impact score: 6.72  
Medical history includes: Fibromyalgia, Muscle pain/myofascial pain/ rheumatism, Migraine, Osteoarthritis, Temporomandibular (TMJ) disorders, Stomach reflux, High blood pressure, Heart Disease  
Self-care includes: Strengthening exercise e.g. weights, Stretching exercise e.g. yoga, Hot or cold applications, Lying down, Taking breaks during day, Practice calming technique, Warm baths, Massage trigger points/ muscle knots, Staying busy being creative  
Goals include: Reduce pain, Improve physical function, Return to normal daily activities

Lessons Completed

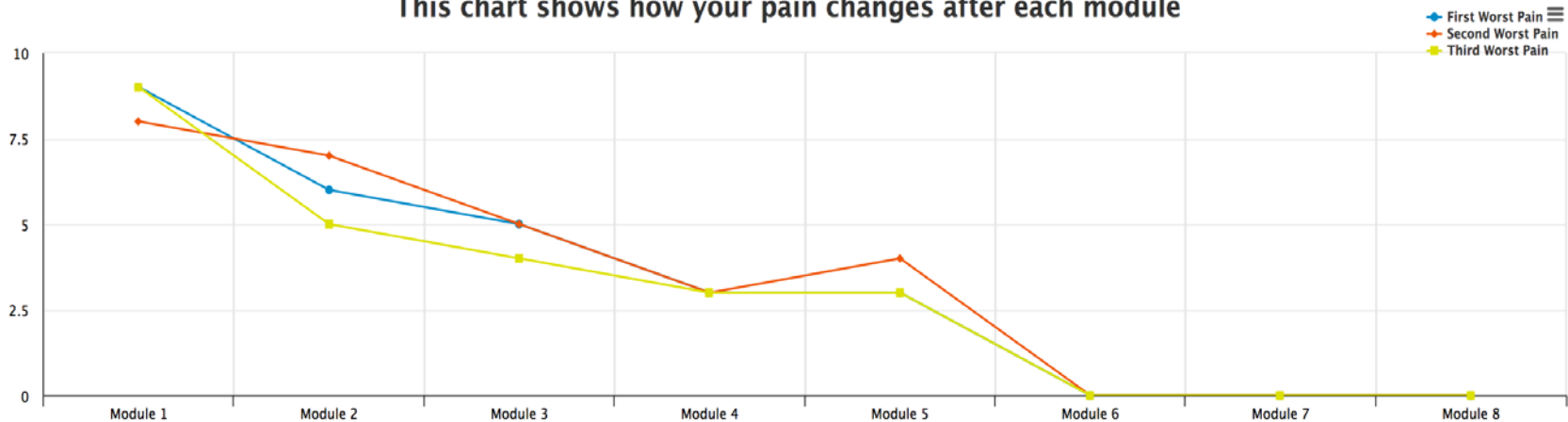
Action Plan

Pain Level

Interference

## Pain Level

This chart shows how your pain changes after each module



# Introducing PACT in the clinic



Health professionals need to ask...

"I am happy to provide you treatment but it is more effective long-term if we also train you to reduce the lifestyle causes of your pain.

Are you interested?"

# NIH/ NIDCR Pilot Study of Self-management



## TMD Self-Care Study

- ✓ Study utility & methods for multi-site RCT of self-management
- ✓ Compare usual self-care vs PACT program
- ✓ 50 participants in 3 weeks with brochure (target = 80)
- ✓ Strong interest by patients



INTERNATIONAL  
MYOPAIN SOCIETY



# *Preventing Chronic Pain*



.....

*Chronic Pain. It's Real.  
It's Preventable. Learn how.*

[www.preventingchronicpain.org](http://www.preventingchronicpain.org)



*"Divine is the task to  
relieve pain."*

*-Hippocrates*

*Thank you*

**[www.preventingchronicpain.org](http://www.preventingchronicpain.org)**