

Long Term Outcomes of a Stepped Intervention on Self-Management Behaviors among Primary Care Patients with Pain and Depression.

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SCAMP Study

**Stepped Care for Affective
disorders and
Musculoskeletal Pain**

Funded by NIMH Grant No: R01 MH071268

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OBJECTIVES

- ✓ Describe SCAMP Self-Management Intervention
- ✓ Present 12 month patient self-efficacy and self management outcomes
- ✓ Present PSM Dose effect on pain and depression

The Problem of Pain

- Pain accounts for 20% of all **clinic visits**
- Analgesics = 12% of all **prescriptions**
- \$100 billion dollars/yr in **health care costs**
- Leading cause of **work loss & disability**
- Leading reason for **alternative medicine**

Pain Self-Management (PSM)

- Demonstrated moderate effect on pain and functioning
 - Meta-analysis by Dixon et al Health Psychology (2007) concluded that psychosocial interventions for pain had a moderate effect on pain related functioning
- Less known about PSM effect on functioning among patients with pain and depression

SCAMP Trial Design

PAIN and DEPRESSION

Stratified Randomization

(n = 123)

- *Pain location (Back vs. Leg)*
- *Clinic site (IU vs VA)*

(n = 127)

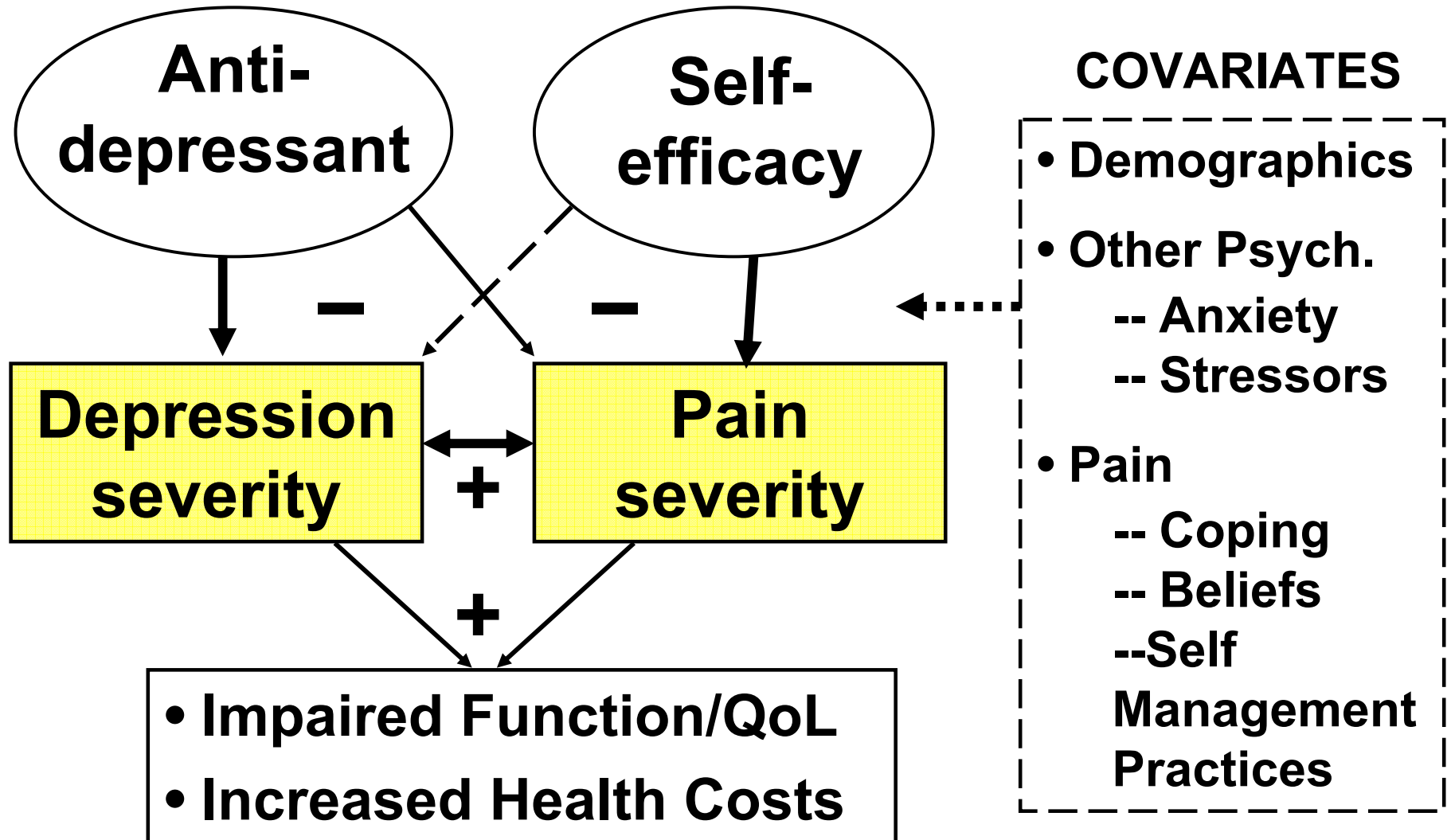
Stepped Care Management

1. Antidepressants – optimization
2. Pain self-management (6 sessions)

Usual Care

Outcome Assessment at 1, 3, 6, and 12 months

SCAMP Conceptual Model



Theoretical Framework: Social Cognitive Theory

- SELF EFFICACY

- (i.e., confidence)

- 4 INFLUENCES

- Persuasion
- Social Modeling/
Vicarious Experiences
- Past Achievements
- Reinterpretation of
Symptoms/Sensations

- SELF REGULATION

 Self-monitoring =
Behavior Change

Patient Pain Self-Management

- Strategies based upon Evidence from AHRQ Back Pain PORT study –e.g., minimal bed rest
- Adapted Lorig's Stanford Arthritis Program for Wishard patients with Acute Low Back Pain (Damush, Weinberger, Perkins et al 2002; 03
 - Improved back pain specific functioning
 - Improved self-efficacy to manage symptoms

Building Self-Efficacy

1. PERSUASION

- CM explanations
- Physician recommendations
- PT/MD Communication

2. SOCIAL MODELING

- Peers
- Material models
- CM demonstrations
- PT practicing strategies

3. PAST

ACHIEVEMENTS

- Success/failure with exercise in past

4. Reinterpretation of sensations & symptoms

- Pain does not always mean “harm”
- Addressing fears
- Changing Negative thoughts to Positive
- Distraction

Build Self-Efficacy

- Goal setting-specific as possible
- Realistic, achievable goals
- Track (self-regulate) behaviors
- Problem solve, use substitution

Step 2 – Pain Self-Management

WHEN	WHERE	WHAT (Treatment Action)
12 wk	Clinic	PSMP – Session 1
14 wk	Phone	PSMP – Session 2
16 wk	Clinic	PSMP – Session 3
18 wk	Phone	PSMP – Session 4
20 wk	Clinic	PSMP – Session 5
22 wk	Phone	PSMP – Session 6
24 wk	Clinic	Close Phase 2. Phone q 3 mo.

Pain Self-Management Program

(example components)

- Education – pain; vocabulary; red flags;
- Identifying /modifying fears and beliefs
- Goal-setting and problem-solving
- Exercise – strengthening; walking, yoga.
- Relaxation; deep-breathing; progressive muscle relaxation; guided imagery
- Changing Thoughts/Distraction
- Handling pain flare-ups
- Working with clinicians and employers-support

Distraction – Squirrel Rehabilitation



Analyses Plan

- ✓ Compared Group Characteristics at Baseline
- ✓ Compared Group Means at 12 months
 - ✓ Self-Efficacy
 - ✓ Self-Management Behaviors
- ✓ PSM Dose Effect – Intervention Arm Only
 - ✓ Pain
 - ✓ Depression

Measures

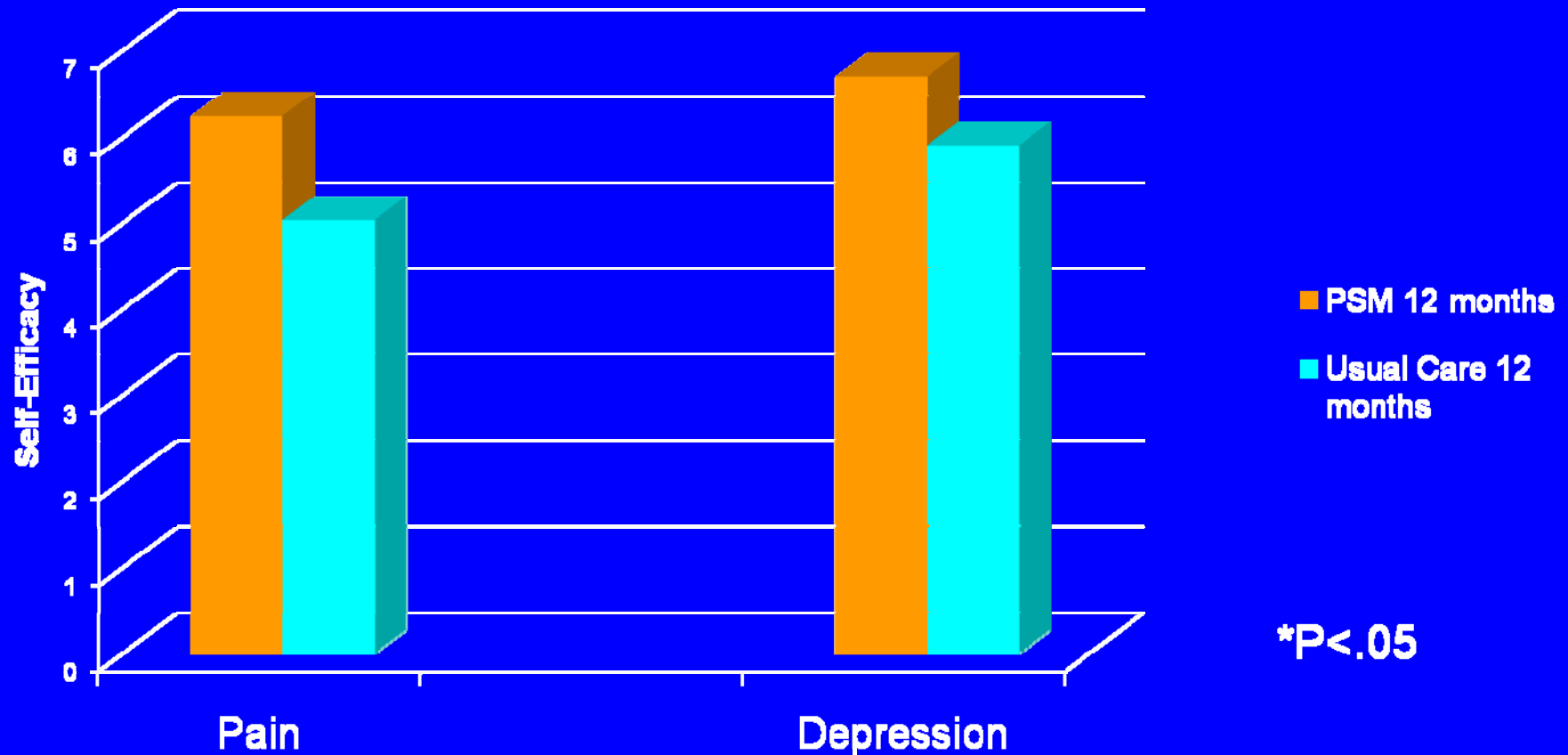
- **Brief Pain Inventory (BPI) Interference during past week (0-10 scale)**
- **SCL-20 depression severity (1-5 scale)**
- **Self-management behaviors (Lorig)**
 - **Frequency/minutes per week**
- **Self-efficacy to manage symptoms (0-10)**
 - **Pain**
 - **Depression**

Baseline Characteristics

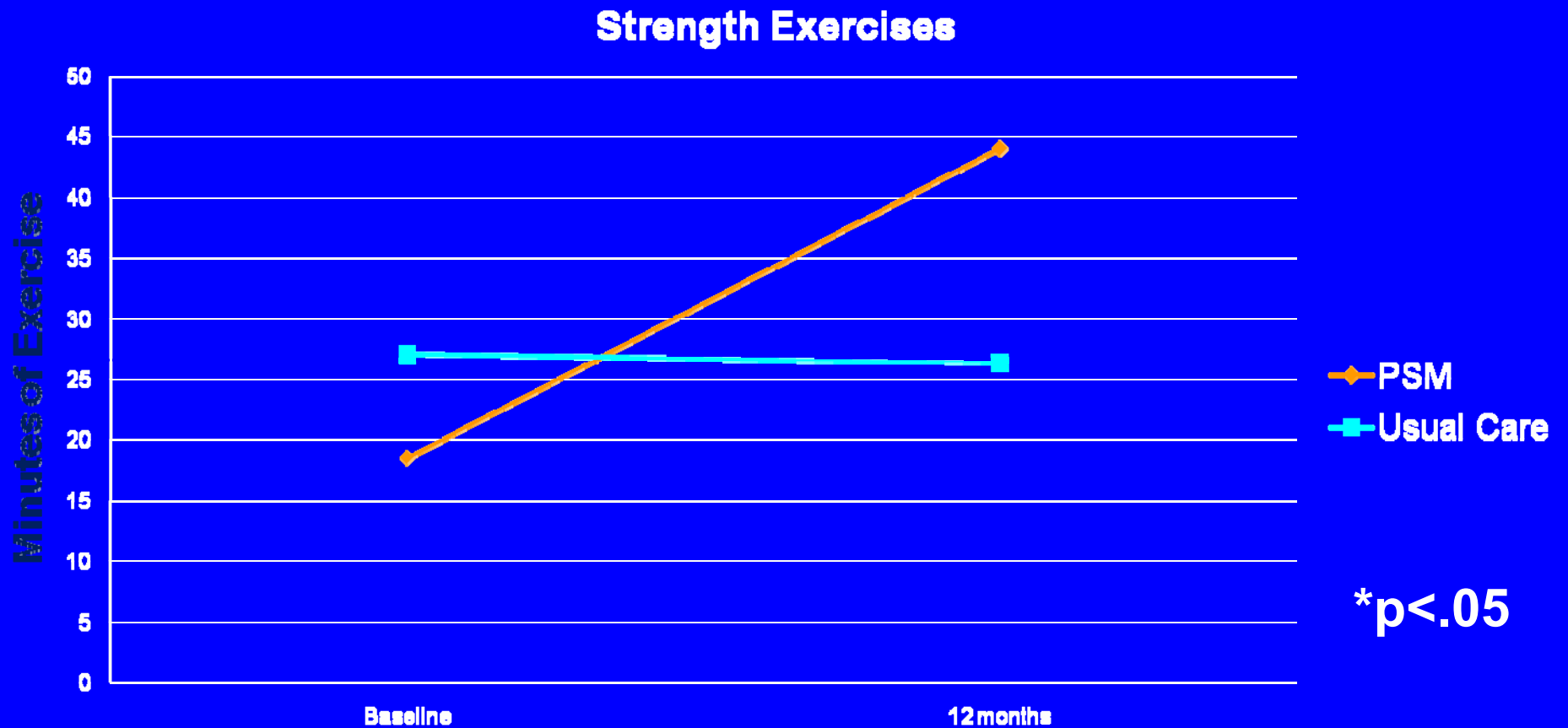
Baseline Characteristics	Stepped Care (N=123)	Usual Care (N=127)
Mean (SD) age, yr	55.1 (12.6)	55.8 (11.0)
Women, n (%)	69 (56)	63 (50)
Race, n (%)		
African-American	42(34)	49(39)
Education, n (%)		
Less than or equal high school graduate	82 (67)	80 (64)
At least some college or trade school	41 (33)	46 (37)
Pain location, n (%)		
Low back	76 (62)	75 (59)
Hip or knee	47 (38)	52 (41)
Number of comorbid medical conditions	2.7 (1.6)	2.6 (1.4)

PSM reported Self-efficacy

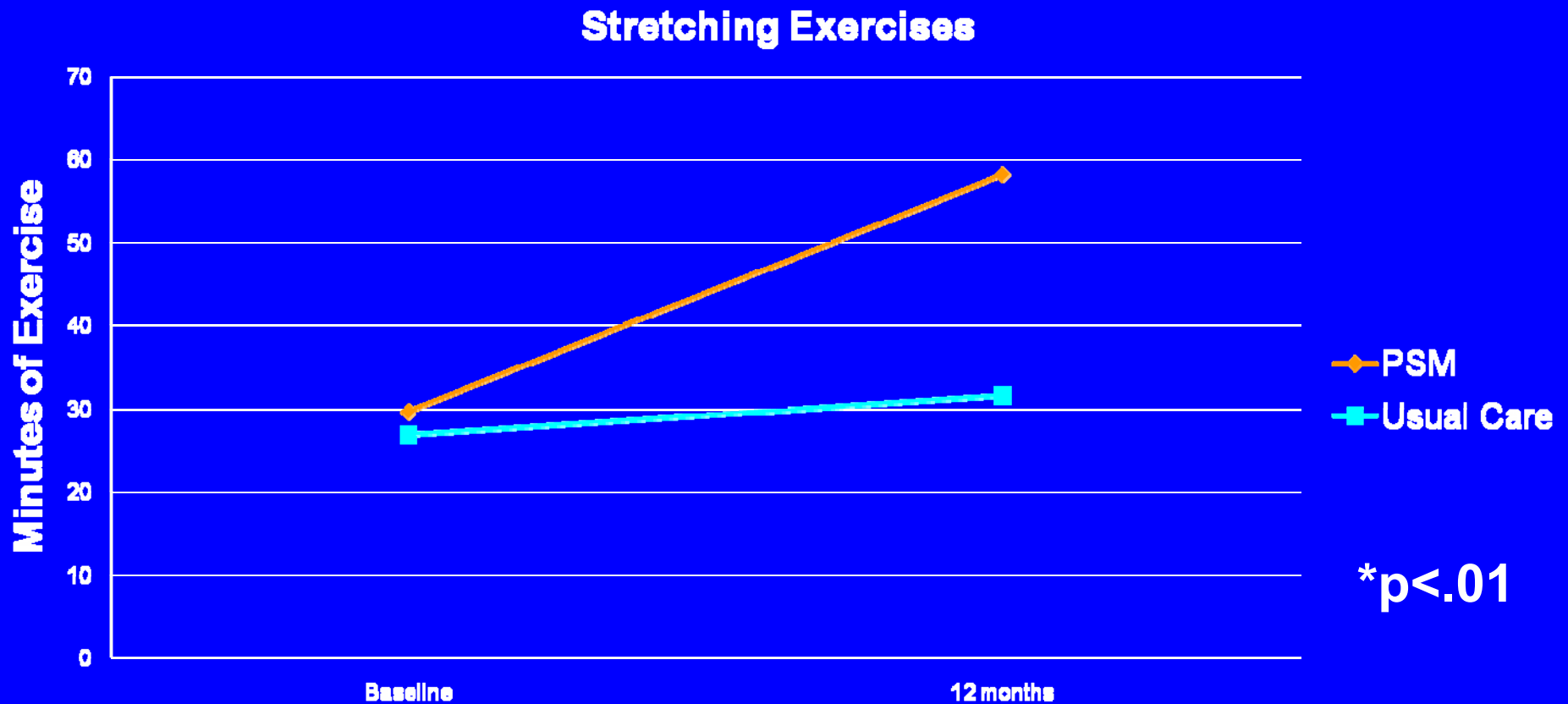
Between Groups 12 Months



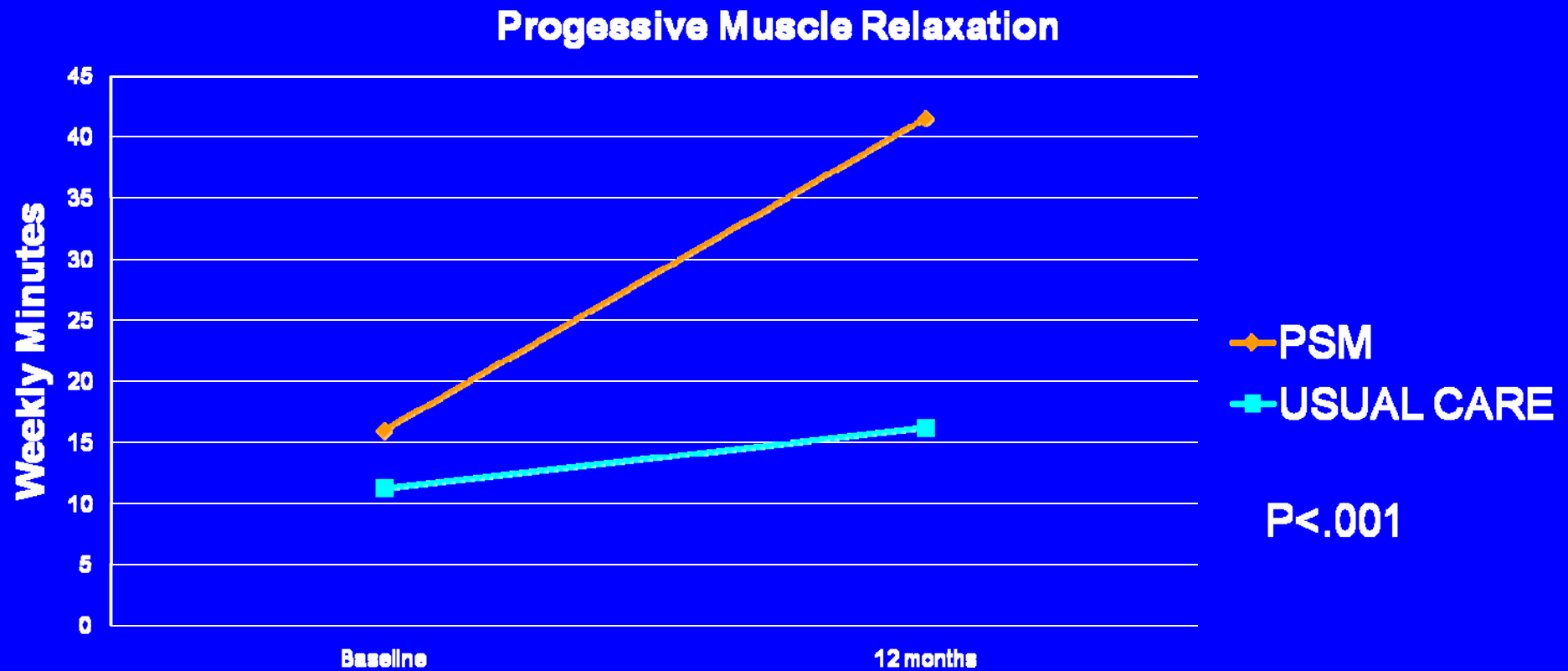
PSM ↑ Frequency of Strength Exercises



PSM ↑ Frequency of Stretching Exercises

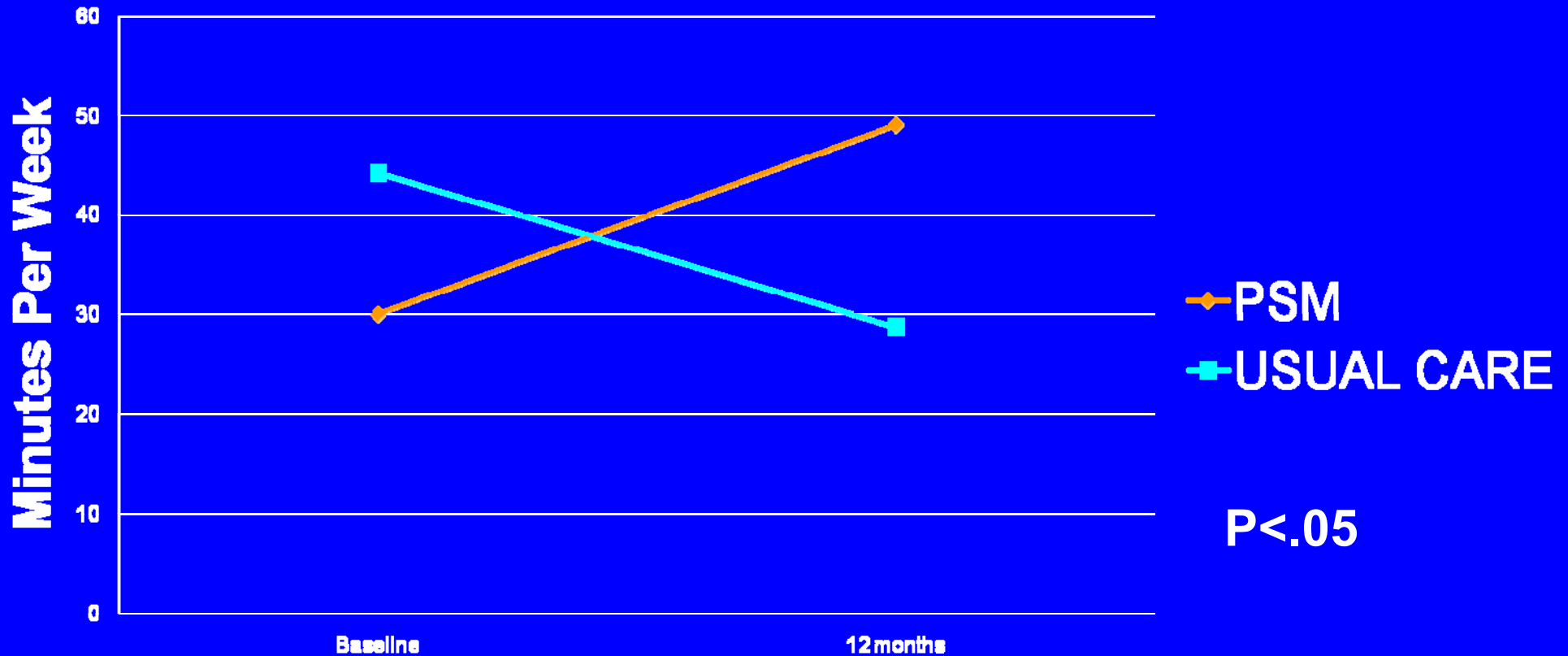


PSM Frequency of Progressive Muscle Relaxation



PSM Visualization for Stress Reduction

Visualization



PSM DOSE

- Offered 6 PSM sessions to Intervention Arm (N=123)
- Created a total PSM session received score
- 51.6% received 5-6 sessions
- 18.6% received no sessions

PSM Dose Response on Depression Severity at 12 months

Total # of PSM sessions

Parameter estimate = 0.099, $p < 0.002$

Full dose (6 PSM sessions) = 0.60

Improvement in depression severity

Controlling for age, sex, ses, hospital site, and
baseline depression severity

PSM Dose Response on Pain Interference at 12 months

Total # of PSM sessions

Parameter estimate = -0.42 , $p < 0.001$

Full dose (6 PSM sessions) = 2.5
improvement in pain

Controlling for age, sex, ses, hospital site, and
baseline pain severity

Limitations

- Patients continued receiving antidepressants during PSM, thus, study was not designed to test the separate intervention components.
- We did not validate the self management self reported data (i.e., exercise). However, we used validated measures shown to be sensitive to change.

Conclusions

- Patients randomized to the Stepped care intervention reported **greater patient self-efficacy and self management behaviors** to manage pain and depression at 12 months compared to patients receiving only usual care.
- PSM **dose of total sessions received was related** to improvements in our primary outcomes of pain and depression severity.
- Implementation of program within usual care.