Evidence-Based Interventions: Improving Patient Self-Efficacy

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Overview

1. Why are cognitive behavioral approaches important to pain prevention and treatment?
2. What are some of these approaches and the evidence for their use?
3. What are the barriers & potential solutions to their integration in pain prevention and treatment?

Terminology

Cognitive behavioral = what we think and do

- Other commonly used terms include:
  - Self-management skills | behaviors
  - Coping skills
  - Mind-body
  - Behavioral interventions
  - Lifestyle interventions
  - Psychosocial treatments
  - Non-pharmacological approaches

Pain is **Biopsychosocial**

Predictors of Pain-Related Disability After Injury

- Pre- and post-injury inactivity
- Acute pain severity (in catastrophic injury)
- Recovery expectations
- Self-efficacy for managing pain & its effects
- Anxiety | fear avoidance
- Catastrophic thinking | beliefs
- Physical & psychosocial characteristics of the job

**List is not comprehensive*

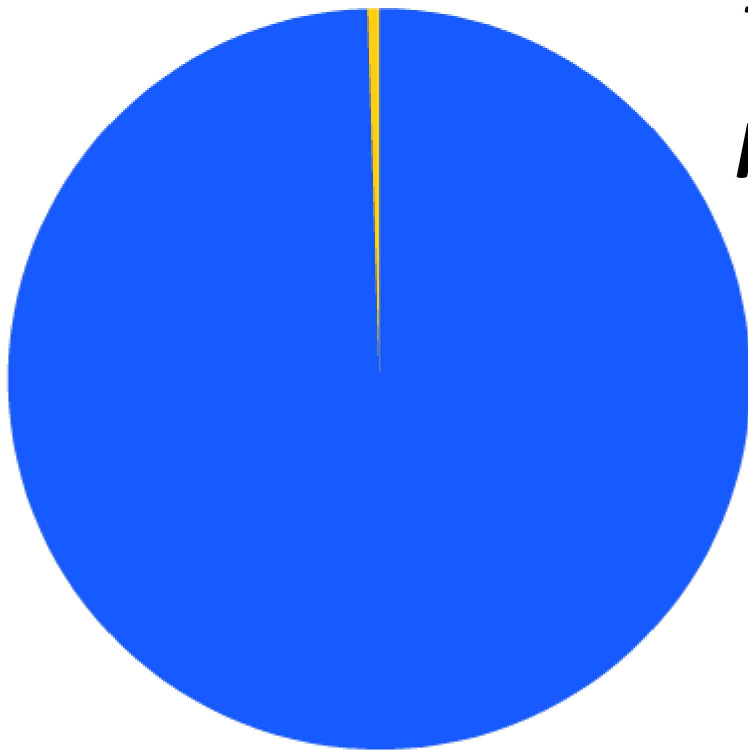
Who Manages Pain?

Hey Doc Have You Figured It Out Yet?
(Mark Collen), Mixed Media.

Pain Exhibit © 2017. All rights reserved.
painexhibit.org

Who Manages Pain?

< 0.5%



The person with pain is the ***primary pain manager***

What is Self-Management?

- The behaviors we do to manage our health, including chronic conditions

and skills

It includes having the confidence to deal with

- Medical aspects
- Roles
- Emotional impact of condition

Institute of Medicine, 2004

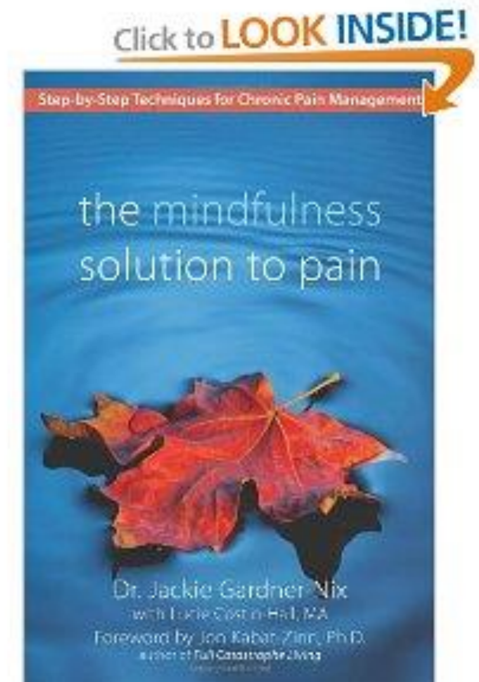
Teresa Brady, 2011

Pain Self-Management Promotes Self-Efficacy & Participation

Walk MS, 2009, Greater Northwest Chapter.

- **…the critical question is not, *"How or why did I get the pain?"* It is:**
- ***"What can I do to manage my pain so that I can get on with my life?"***

Turk & Winters, 2006, Pain Survival Guide.



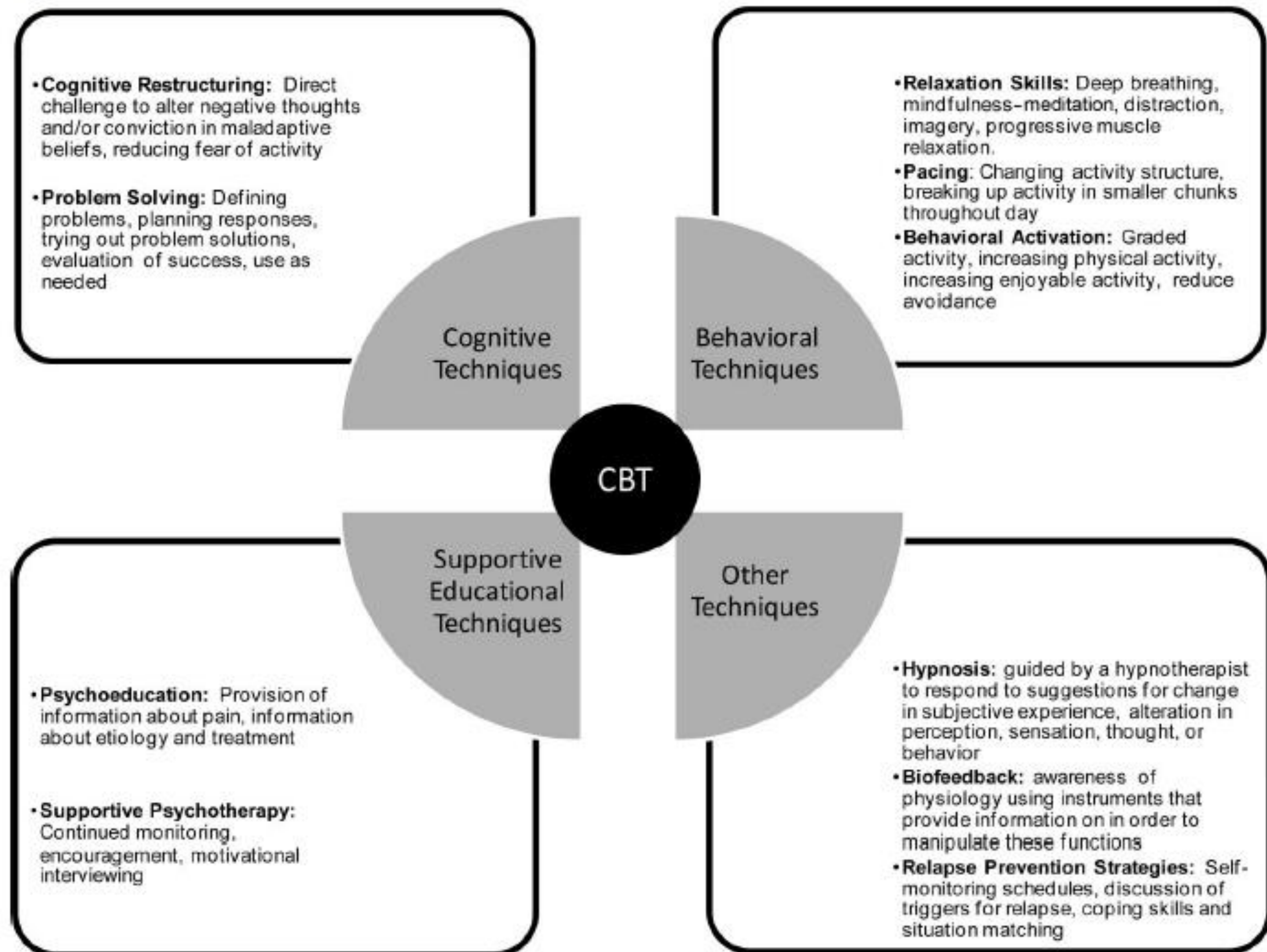
Evidence-Based Cognitive Behavioral Approaches to Pain

Cognitive Behavioral Therapy (CBT)

- Prevailing type of pain self-management
- Based on cognitive behavioral theory of pain: what we think and do influences how we feel and function
- Common ingredients include:
  - Relaxation training
  - Cognitive therapy (changing unhelpful thinking)
  - Behavioral strategies, including adaptive coping strategies & behavioral activation

Figure 1

Summary of Cognitive-Behavioral Therapy (CBT) Techniques



Note. From "Cognitive-Behavioral Perspective and Cognitive-Behavioral Therapy for People With Chronic Pain: Distinctions, Outcomes, and Innovations" Skinner, H. D. Wilson, and D. C. Turk, 2012, *Journal of Cognitive Psychotherapy, 26,* p. 98. Copyright 2012 by Springer Publishing Company.

Mindfulness Based Interventions

- **Mindfulness:** Paying attention, on purpose, non-judgmentally, in the present moment.

Jon Kabat-Zinn

Mindfulness Meditation: The intentional practice of mindfulness.

Mindfulness-based interventions are comparable to CBT interventions: both reduce pain severity and disability and improve psychological functioning.

CBT & Mindfulness Implementation

- Typical delivery:
  - Can be delivered via 1:1 or group interventions
  - Classes or self-help
  - In person or via technology (including phone)
- Often low intensity: 1 – 8 sessions/classes
- More likely to be used if a *self-management mindset* is in place

The New York Times

The Opinion Pages | CONTRIBUTING OP-ED WRITER

Can We End the Meditation Madness?

OCT. 9, 2015

I AM being stalked by meditation evangelists.

They approach with the fervor of a football fan attacking a keg at a tailgate party. “Which method of meditation do you use?”

I admit that I don’t meditate, and they are incredulous. It’s as if I’ve just announced that the Earth is flat. “How could you not meditate?!”

I have nothing against it. I just happen to find it dreadfully boring.

“But Steve Jobs meditated!”

Yeah, and he also did L.S.D. — do you want me to try that, too?

Evidence: CBT is Effective

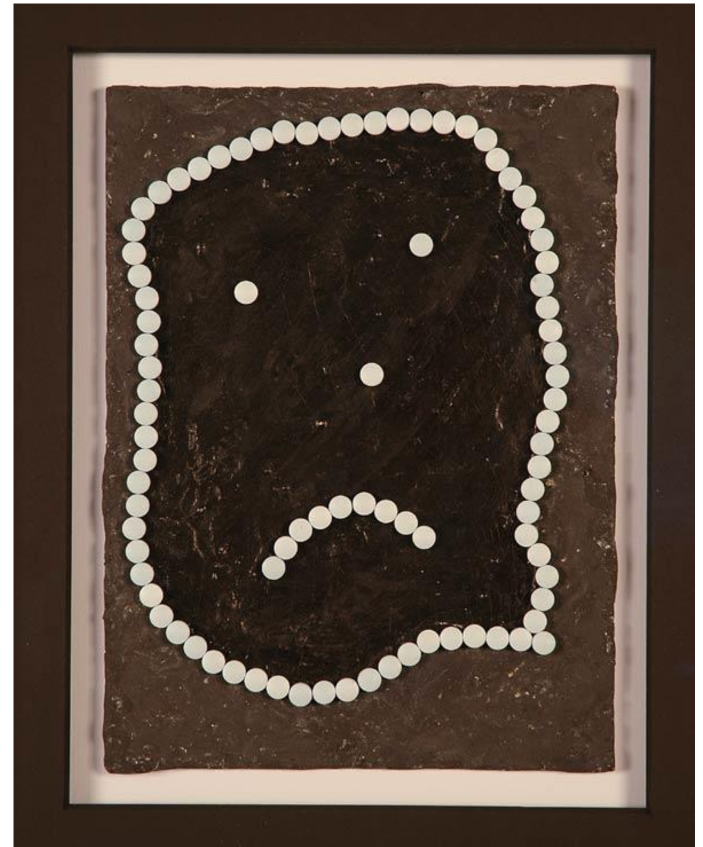
- Multiple meta-analytic reviews have concluded that CBT interventions are efficacious in adults and children with chronic pain in:
  - Reducing pain severity &interference
  - Improving functioning (including mood)
- Effective for a wide range of pain conditions
- Also beneficial adjunct for acute pain

Ehde, Dillworth, & Turner, (2014). Am Psychol, 69 (2).

Williams et al. (2012). Cochrane Database Syst Rev(11), CD007407.

Barriers To Adoption of Self-Management Approaches

- Mindset re pain
- Societal & system
- Access



Happy Pills Ain't So Happy (Mark Collen)
Crushed & whole Welbutrin, acrylic media, & charcoal. Pain Exhibit © 2016.

Mindset of Providers, Patients, & Society

- **Focus on:**
  - The quick fix
  - Pain relief rather than function or participation
  - Passive strategies rather than self-management
- **Behavioral treatments are often viewed as:**
  - An afterthought or ”extra” treatment
  - Less effective
  - What to try when other treatments have failed
  - Stigmatized

Societal & System Barriers

- Pain primarily treated from medical model
- Ease of prescribing opioids or medications relative to other therapies
- Better insurance coverage for medications
- Inadequate provider training on CBT benefits
- Inadequate time for providers to address lifestyle/behavioral approaches to pain

Access Barriers

- Geographic barriers
- Insufficient workforce with CBT pain expertise
- Disparities in access to CBT for those with language, cultural, or cognitive differences
- Rigid focus on delivering CBT for pain via:
  - 1:1 or group-based psychotherapy which often occurs during "business hours"
  - By highly trained providers

Innovations to Address Barriers: **Community-based Implementation**

- Community-based pain self-management programs *(e.g., Ersek et al., 2008, for older adults; also Stanford Chronic Disease Self-Management Program)*

- Rural, low-literacy programs *(Thorn et al., 2011)*

Capitalize on Technology

- Telehealth
  - Telephone
  - Web-based
  - Teleconference groups
- Wearable technology
- Technology use does not always translate to behavior change
- Web-based interventions are beneficial but suffer from poor uptake & high drop-out

Efficacy of Telephone-Delivered Cognitive Behavioral Therapy for Chronic Pain in Disability Conditions

TIPS Study

Funding: NCMRR, NICHHD: R01 HD057916, HD057916-03 S1

ClinicalTrials.gov Identifier: NCT00663663

The TIPS Trial

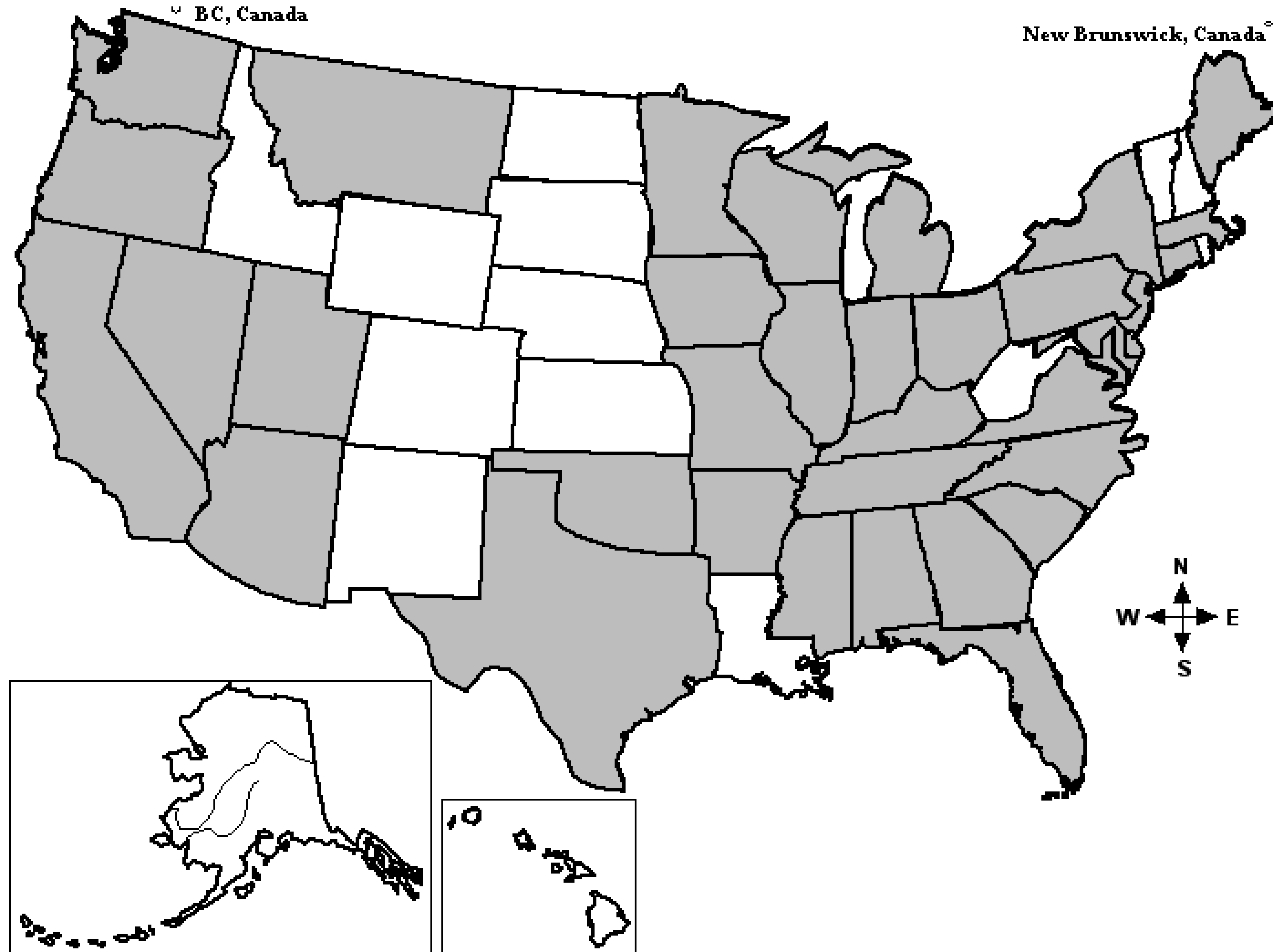
- RCT comparing CBT and pain education
  - 8 weekly 50-60 minute phone sessions
  - Delivered by master's level to PhD
  - Detailed therapist & participant manuals

- Enrolled adults with:
  - amputation, spinal cord injury, or multiple sclerosis
  - pain of $\geq$ 6 mo duration & $\geq$ 4 pain intensity in past week

National Recruitment

- 39% SCI
- 43% MS
- 18% AMP

188 participants randomized



Treatment Adherence

- CBT:
  - 83.2% completed all 8 sessions
  - 90.6% complete ≥4 sessions
- Pain Education:
  - 92.5% completed all 8 sessions
  - 94.7% complete ≥4 sessions

Telephone Delivery

Benefits

- “Easier” & “convenient”: 53%
- No travel or driving: 47%
- Don’t have to “dress up”: 30%
- Physically more comfortable: 24%
- Other comments:
  - “Services not available in my rural, small town”
  - “I can attend sessions even if I’m not feeling well”
  - “Beats just reading about it”

Drawbacks

- None: 71%
- Not having face-to-face communication/seeing the person: 24%
- Other comments:
  - “Harder to get a connection with someone over the phone” (1 participant)
  - “Pain in neck from phone call length” (1 participant)

TIPS Responder Analysis

% who reported ≥30% reduction
in average pain intensity

CBT: 35.8%

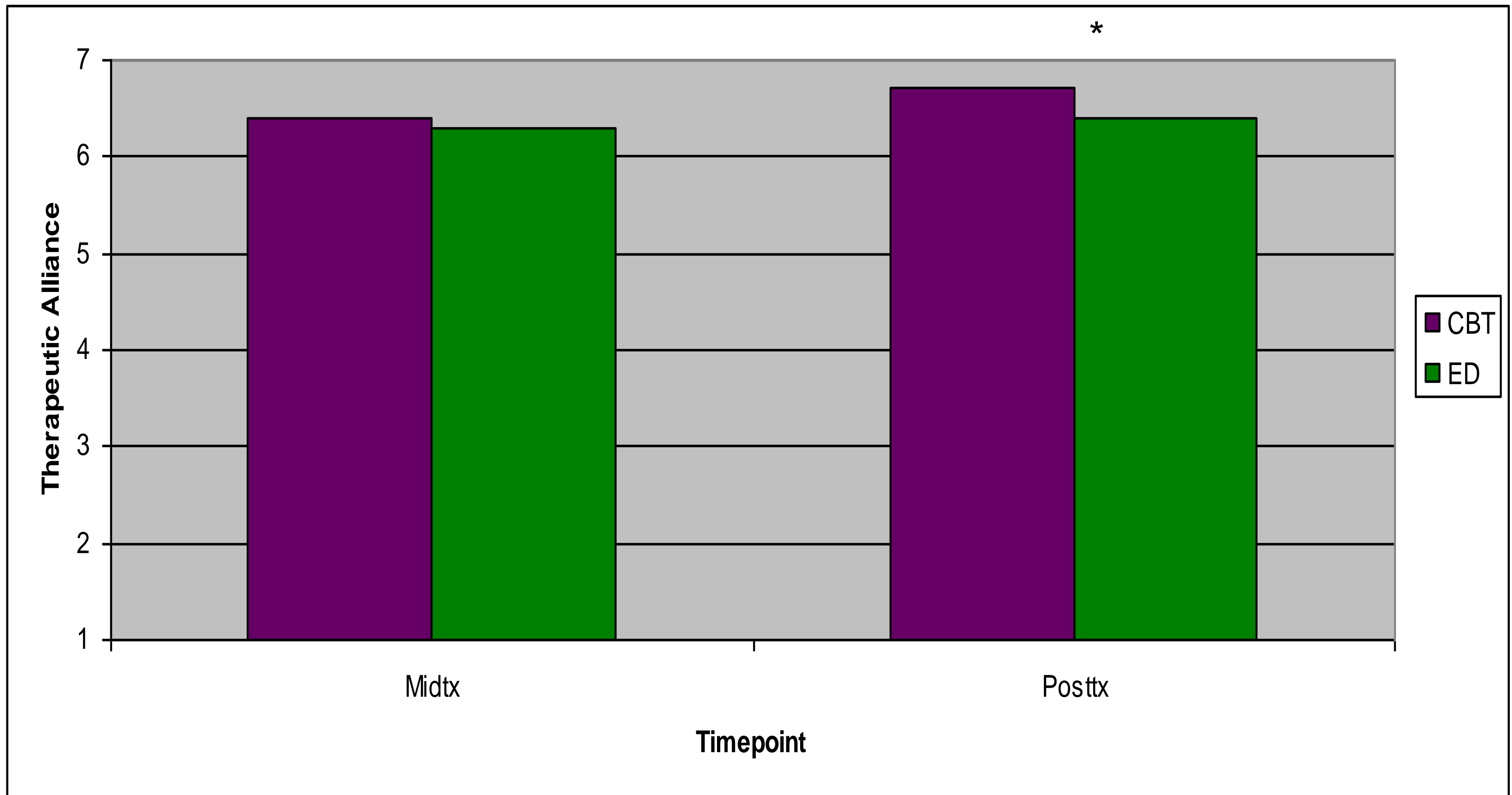
Ed: 28.6%

$p = 0.31$

(pre- to post-treatment)

Ehde et al., under review.

Therapeutic Alliance Was High



*p=.01

Working Alliance Inventory-Short Revised *(Hatcher & Gillaspy, 2005)*

Integrate CBT Into Healthcare

- Delivery by non-psychologists such as physical therapists *(e.g., Archer et al., J of Pain, 2016)* or dental hygienists *(e.g., Turner et al., Pain, 2011)*

- Integration of **pain** behavioral health specialists or care managers into primary and specialty care teams

Improving the Quality of Care for Pain & Depression in Persons with Multiple Sclerosis

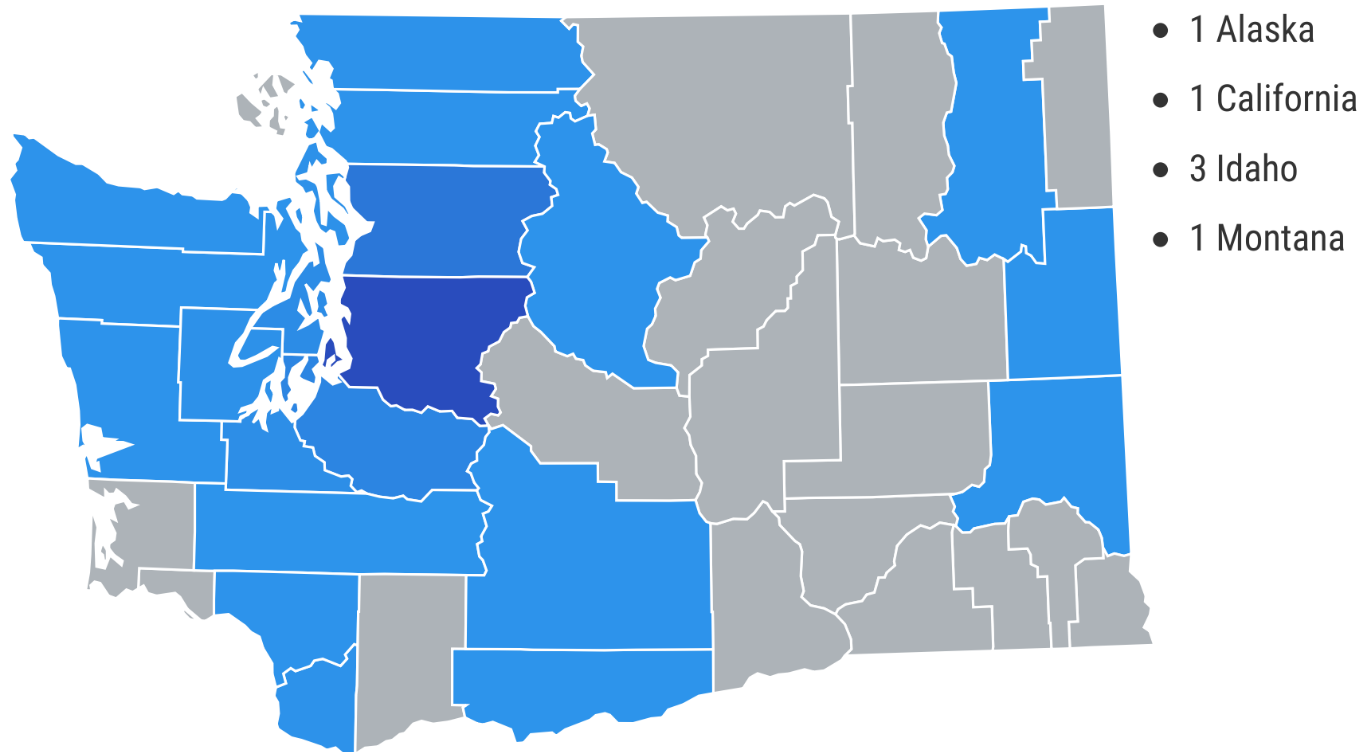
The MS Care Study

Funding: Patient-Centered Outcomes Research Institute: IH-1304-6379 (PI: Ehde)

MS Care Study

- **Asks:** Is a patient-centered collaborative care approach for pain & depression (*MS Care*), compared to usual care, effective at improving chronic pain, depression, and care quality outcomes in patients with MS?
- 16-week single-blind RCT comparing MS Care to usual care in the UW MS Center
- 195 outpatients with MS and chronic pain of at least moderate intensity and/or major depression

MS Care Study: Telephone Promotes Reach



75% of sessions delivered by phone

MS Care Study Results

- At post-treatment, participants in collaborative care (vs. usual care) reported significantly less:
  - Pain severity & interference
  - Depression severity
  - Disability
  - Fatigue
- …and greater satisfaction with pain and depression care, as well as overall healthcare
- See www.uwmscare.org

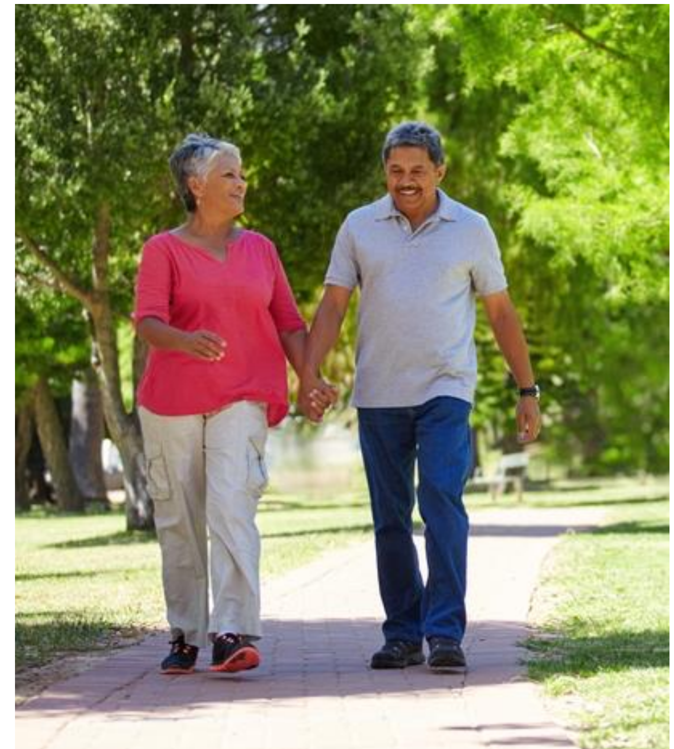
Labor & Industries Pain & Behavioral Health Collaborative Care Program

- Target population: injured workers with pain and/or behavioral health issues at risk for time loss and disability
- Implementing collaborative care targeting injured workers early in the claim process
- Addressing a critical gap in care for injured workers

Washington State Department of
Labor & Industries
Workers' Compensation Services

Future Innovations

- Mechanism research: aims to build more effective & better targeted treatments



- Secondary prevention
- Combination interventions
  - Physical activity & CBT

Conclusions

- Cognitive behavioral approaches to pain self-management are effective in reducing pain and, particularly, disability
- Too few people have access to these approaches
- Technology, integrated models of healthcare, and community-based programs show considerable promise for addressing pain
- Need a **portfolio** of services to prevent and treatment chronic pain

Acknowledgements

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UNIVERSITY *of* WASHINGTON

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Workers' Compensation Services

http://www.uwmscare.org/