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# Major Models and Evidence for Chronic Pain Management Effectiveness: Integrative Care

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### Why Complementary and Integrative Health for Pain?

- High rates of use of some CIH modalities across United States with pain primary health *complaint* for which used
- At least small consistent effects seen for many CIH modalities/pain conditions
- Although data on harms limited; no evidence suggesting serious harms
- Focus has evolved from Complementary and *Alternative* Medicine (CAM) to use to Complementary and *Integrative* Health (CIH)
- Some health practices may more fully harness nonspecific (placebo) treatment effects (benefit and historic albatross?)

#### **Develop & Improve Pain Management Skills**

- Understanding pain
- Activity / rest cycling (building activity tolerance)
- Relaxation skills (progressive muscle relaxation, body scan, guided imagery, & biofeedback)
- Pleasant activity scheduling
- Attentional awareness & distraction techniques

PHYSICAL DECLINE

- Challenging distorted thinking & calming self-statements
- Managing your moods
- Pain Psychology Therapies: Cognitive Behavioral Therapy, Mindfulness Based Stress Reduction, & Acceptance and Commitment Therapy

#### Movement & Body Awareness Strategies

- Physical therapy
- Regular physical activity (e.g., walking, water exercise, gardening, etc.)
- Mind / body practices (e.g., yoga, tai chi, etc.)
  - Ergonomics / body movement awareness (i.e., biodynamics)
    - Assistive devices and environmental accommodations



#### Pain Amplifiers

TRICTED ACTIVITY

& AVOIDANCE

- Sleep problems
- Stress, anxiety, depression
- Unhealthy eating and weight
- Drug, alcohol, and tobacco use

Pain Causes

Accident or injury

 Nervous system sensitivity

Disease

### PAIN

#### Common Conventional Medical Treatment Options

- Pain medications & topical products\*
- Injections\*
- Surgery\*
- TENS Unit
- Heat & ice
- \* Limited effect on long term functioning use judiciously. Higher risk, limited benefit, less evidence it helps patients long term.

### REVERSING THE PERSISTENT PAIN CYCLE

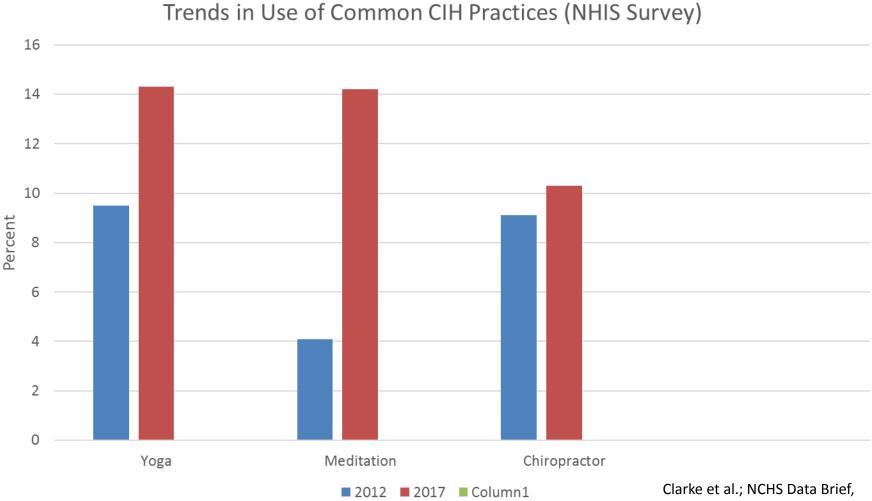
#### Integrative Health Practices

- Massage
- Acupuncture
- Chiropractic and Osteopathic care (spinal manipulation)

#### DeBar et al. Contemporary Clinical Trials, 2018

#### Second Line Treatment / Passive Approaches

### What CIH Practices Are Most Common?



11/2018

### Impact of CIH Treatment on Pain and Functioning

### 1-6 months post treatment, AHRQ CE Review (June 2018)

Chronic Low Back Pain		Chronic Neck Pain		Osteoarthritis		Fibromyalgia		Tension Headaches	
Pain	Function	Pain	Function	Pain	Function	Pain	Function	Pain	Function

### **Mind Body Practices**

Yoga	++*	+*					
Other			+a		++ <sup>b</sup>	+b	

### **Mindfulness Practices**

MBSR	+*					
Meditation						

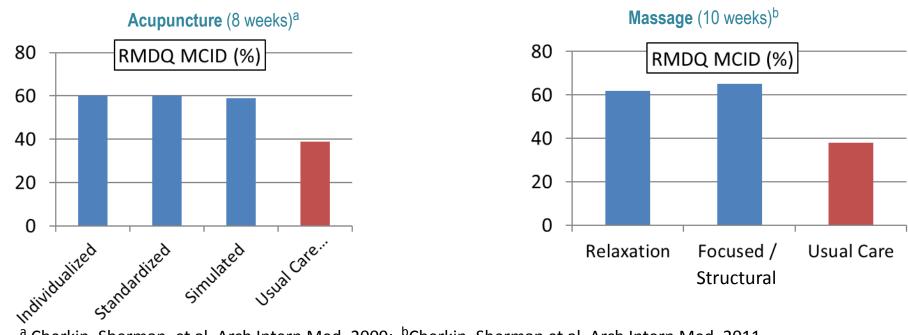
### **Manual Therapies**

Musculoskeletal manipulation	*	+		+* (hip)	+ (hip)		++	+
Massage	+	+				*C		
Acupuncture	+	+	+			+*	+d	

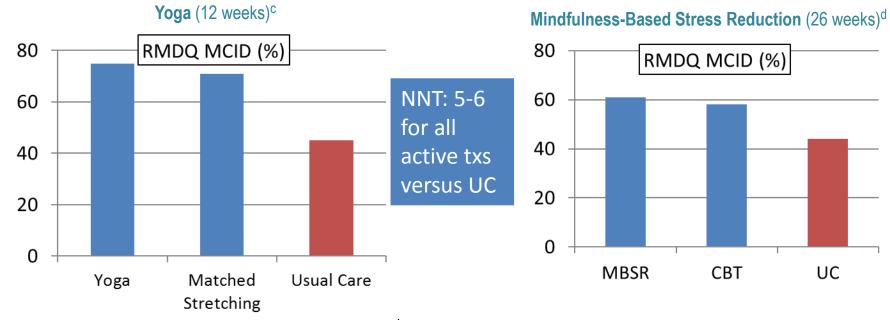
All compared with usual care, placebo, sham, attention control, or waitlist + small ES, ++ moderate ES, \* results endured through 6-12 months post treatment <sup>a</sup> Alexander Technique, <sup>b</sup> Qigong & Tai Chi, <sup>c</sup> Myofascial release, <sup>d</sup> Laser acupuncture

# Digging Deeper (or what the AHRQ report doesn't speak to...)

- Chronic pain rarely shows up alone
  - multisite / widespread pain common
  - frequent and exacerbating symptom co-riders (sleep problems, anxiety, depression)\*
- Everyday CIH treatment often delivered as more comprehensive package (needling +, spinal manipulation +...other CIH modalities, support for broader lifestyle changes; yoga)
- CIH approaches often disconnected from conventional health care and integration logistically and culturally challenging



<sup>a</sup> Cherkin, Sherman, et al, Arch Intern Med, 2009; <sup>b</sup>Cherkin, Sherman et al, Arch Intern Med, 2011



<sup>c</sup> Sherman, Cherkin et al, Arch Intern Med, 2011; <sup>d</sup> Cherkin, Sherman et al, JAMA, 2016



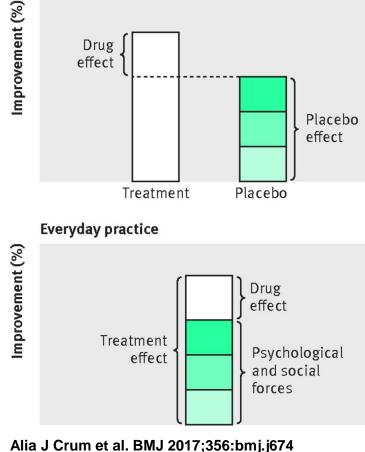


- "The effects of *patient and clinician credible* CIH interventions may derive more from contrextual effects of the care experience (e.g., listening, caring, touching) than from the specific characteristics of the intervention" – Dan Cherkin
- Given similar CIH effects perhaps:
  - Giving patients a choice may increase commitment, expectation, & adherence to intervention/concomitant lifestyle change?
  - Less concern about geographic variability in available modalities?
- Can we more thoughtfully employ "active" and "passive" CIH (and other nondrug) modalities in our design of clinical trials?

# Fig 1 The psychological and social forces of healing are typically viewed as in competition with drug effects in placebo controlled trials (top) but in everyday practice they underlie all treatment effects (bottom).

- Body's natural healing abilities
- 🗖 Mindset
- Social context







### Harnessing "Mindset" to Improve Outcomes

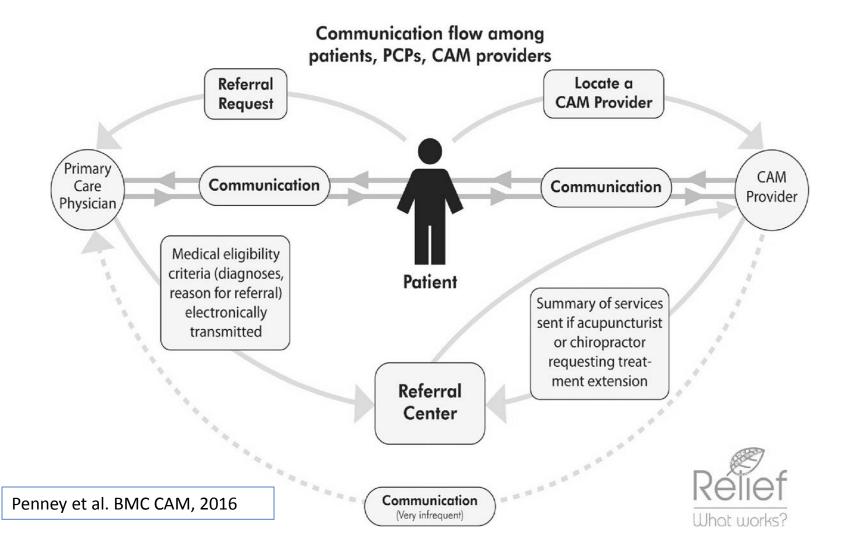
Alongside advances in drug and surgical trials, improved understanding of the ability of the social context and patients' mindsets to evoke healing properties in the body can be an extraordinary resource for health and healing.

- Crum, BMJ, 2017, Making Mindset Matter The most important thing is the initial connection you make with the patient. That connection is critical, because that patient needs to know they have, number one, hope. I sell hope here. I hate to admit this, but that is one thing that Western medicine does really badly. - Acupuncturist interviewed about working with those with chronic musculoskeletal pain.

# Barriers to Integrating CIH Into Clinical Care

- Current clinical, logistical, and cultural divide between conventional health care systems and CIH providers
- CIH care provision often not well aligned with what can be readily reimbursed under public health care systems (CMS-Medicaid)
  - practitioner credentialing issues (yoga practitioners, massage therapists)
  - misalignment between reimbursable / evidence based portion of CIH treatment and current structure of care
- No feedback loop between CIH and conventional medical providers
  - little information about CIH provider quality of care / service provision
  - patient as conduit

### CIH Implementation Challenges: Patient at center of navigating and integrating care



# Key Summary Points

- Chronic pain medical problem for which most often CIH used
  - evidence suggests at least modest impact on functioning for several modalities (yoga, massage, chiropractic care, acupuncture, MBSR)
  - little or no adverse effects.
- Increasing emphasis on promoting active treatment/self-care and integrating CIH services with conventional care to do so
- CIH practices may better harness non-specific (placebo) treatment effects than conventional care (and better address multiple chronic conditions? [Multiple overlapping pain conditions? Associated symptoms?])
- Current health care structural system and cultural gaps in

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