Mindfulness for Chronic Pain & Opiate Dependence

Ronald D. Siegel, Psy.D.

Center for Mindfulness and Compassion
Cambridge Health Alliance
Harvard Medical School

Tuesday, September 8, 2020
12:00 – 1:00 PM EDT
Webinar Housekeeping

Minimize or maximize the webinar panel by selecting the orange arrow.

To be recognized, type your question in the “Question” box and select send.
Meet Our Speaker

Ronald Siegel, PsyD.

- Assistant Professor of Psychology, part-time, at Harvard Medical School, Cambridge Health Alliance,
- Dr. Siegel is a longtime student of mindfulness meditation and is a faculty and board member at the Institute of Meditation and Psychotherapy.
- He teaches internationally about mindfulness and psychotherapy and mind-body treatment, while maintaining a private practice in Lincoln, Massachusetts.
- His books include *The Mindfulness Solution, Wisdom and Compassion in Psychotherapy*, and *Mindfulness and Psychotherapy*. 
Disclosures

• I have no financial relationships with an ACCME defined commercial interest
Learning Objectives

By the end of this presentation, attendees will be able to:

1. Identify the core components of mindfulness practices and mechanisms of therapeutic action.

2. Describe cognitive, affective, and behavioral components of chronic pain cycles and how mindfulness practices can help interrupt them.

3. Examine how mindfulness practices can disrupt or address the common patterns of dependent behavior.
Chronic Back Pain
Bad Back?
The Orthopedic Story
What’s the Evidence?

• 2/3 of people who have never suffered from serious back pain have the same sorts of “abnormal” back structures that are often blamed for the pain

• Millions of people who suffer from chronic back pain show no “abnormalities” in their backs

• Many people continue to have pain after “successful” surgical repair
“Smoking Gun” Studies

- What countries have chronic back pain epidemics?
- Who gets chronic back pain?
- What is the quickest way out of acute back pain?
Autonomic Nervous System

Parasympathetic
- Stimulates flow of saliva
- Slows heartbeat
- Constricts bronchi
- Stimulates peristalsis and secretion
- Stimulates release of bile
- Contracts bladder

Medulla oblongata

Sympathetic
- Dilates pupil
- Inhibits flow of saliva
- Accelerates heartbeat
- Dilates bronchi
- Inhibits peristalsis and secretion
- Conversion of glycogen to glucose
- Secretion of adrenaline and noradrenaline
- Inhibits bladder contraction

Solar plexus

Chain of sympathetic ganglia
HPA Axis

1. Hypothalamus
2. Releasing factor
3. Anterior pituitary
4. ACTH (through blood)
5. Adrenal cortex
6. Cortisol
A Well-Adjusted Brain
THE CHRONIC BACK PAIN CYCLE

START
from stress connected with life situations and/or difficult emotions

START
from injury or soreness connected with activity

TENSING
of back muscles

SENSATION
of back pain

NEGATIVE EMOTIONS
fear, anxiety, irritation

NEGATIVE THOUGHTS
belief in damaged back, worries, pessimism

RESTRICTED
PHYSICAL ACTIVITY

PAIN CYCLE

As Cycle Continues Over Time

ONGOING NEGATIVE EMOTIONS INFLUENCE CYCLE
frustration, anger, depression, exhaustion

PHYSICAL DECONDITIONING INFLUENCES CYCLE
decreasing strength, flexibility, endurance;
increasing susceptibility to minor injury
Cartesian Model of Pain
Cold Pressor Test

Gate Control Models of Pain

- Pain is not proportional to extent of tissue damage
- Pain is exacerbated by fear
- Chronic back pain is thus due to both effects of muscle tension and increased sensitivity to pain
Not Imaginary Pain

• While psychological stressors of all types can contribute to chronic back pain, the pain is not imagined or “All in the head”

• Caused by real muscle tension and amplification of pain signals by fear

• Patients need to hear this repeatedly
Mindfulness for Rehabilitation

1. Medical Evaluation
2. Cognitive Restructuring
3. Resuming Normal Activity
4. Working with Negative Emotions
Mindfulness
1. Awareness

2. Of present experience

3. With loving acceptance
Adapting Practices

Centrality of culture

- Racial, ethnic, and religious identity
- Secular vs. religious presentations of mindfulness practice
- Adaptations for personal and cultural trauma history

(Pain) x (Resistance) = Suffering

• Pain can be observed to be separate from “suffering”

• Apparently solid pain states are observed to be like frames in a movie, ever-changing
Pain is Inevitable, Suffering is Optional

Suffering Includes:

• Grimacing, wincing, bracing.
• Aversive thoughts.
• Wishes for relief.
• Self-punitive thoughts.
• Anger, fear, depression regarding condition.
Mindfulness for Experimentally Induced Pain

Compared to novices, Experienced Meditators:

• find pain less unpleasant

• can observe pain less reactively

• find that open monitoring reduces pain unpleasantness

• have less anticipatory pain anxiety
Insula

- Associated with interoception
  - Visceral and “gut” feelings
  - Processes transient body sensations

- Activated during meditation practice

Prefrontal Cortex (PFC)

Evaluates emotional responses and regulates emotion

• “Yes, looks like a lion, but lions aren’t found here, so it’s probably a beige rock”

Meditators practicing mindfulness when exposed to pain:

- had decreased activity in the lateral prefrontal cortex (lPFC) – evaluates sensation
- had increased activation in the posterior insula – registers sensation

Mindfulness & Cognitive Restructuring
Enhancing Metacognitive Awareness

- Notice prevalence of anxious thought and feeling

- Notice future-oriented catastrophizing

- Notice “budgeting” activity
Mindfulness & Resuming Normal Life
Creative Hopelessness

- Attempts to get rid of pain intensify and perpetuate disorder
Relinquishing Control

- Letting go of quest to fix alleviate pain
- Useful to control behavior
- Impossible to control sensations
Resuming Lost Activities

- Exposure and response prevention central to treating *kinesiophobia*

- Resume activities often enough to be convinced that they are not damaging
The Importance of Exercise

- Strength, flexibility, and endurance training
  - To treat kinesiophobia
  - To rehabilitate muscles
Increasing Symptom Tolerance

- Pain as object of awareness
- Bring attention to wider area if necessary
Mindfulness & Working with Negative Emotions
Opening to Painful Emotions

• Experiential avoidance increases anxiety & muscle tension

• Mindfulness practice
  • Enhances interoception
  • Develops affect awareness and tolerance
Other Pain Disorders
Same 4 Steps

1. Medical Evaluation
2. Cognitive Restructuring
3. Resuming Normal Activity
4. Working with Negative Emotions
Is it Serious?

• Danger of insufficient response to distress
  • Neglecting medical evaluation and treatment

• Danger of excessive response to distress
  • Maladaptive pursuit of pain relief
Mindfulness for Opiate Use Disorder
We’re All Addicts

- Most behavior is compulsive
  - Seeking pleasure
  - Reducing pain

- Don’t notice unless we pay attention
Addictive Loop

Adapted from Judson Brewer, MD PhD, Yale School of Medicine
How Can Mindfulness Help?

- Cultivating acceptance of changing experience
- Learning to tolerate negative emotional states and not take relapses personally
- No longer believing in our thoughts
- Practicing experiential approach

Breaking Free

• Notice sensation

• Notice impulse

• Watch impulse wax & wane

• Be conscious of movement
Exposure Treatment

• Mindfulness practice develops distress tolerance

• Allows us to bear experience
Additional Resources

For back pain worksheets, visit: www.backsense.org

For recorded meditations, visit: www.mindfulness-solution.com

Email: rsiegel@hms.harvard.edu
Additional References


Additional References


PCSS Mentoring Program

- PCSS Mentor Program is designed to offer general information to clinicians about evidence-based clinical practices in prescribing medications for opioid use disorder.

- PCSS Mentors are a national network of providers with expertise in addictions, pain, evidence-based treatment including medications for addiction treatment.

- 3-tiered approach allows every mentor/mentee relationship to be unique and catered to the specific needs of the mentee.

- No cost.

For more information visit: https://pcssNOW.org/mentoring/
Have a clinical question?

Ask a Colleague
A simple and direct way to receive an answer related to medication-assisted treatment. Designed to provide a prompt response to simple practice-related questions.

Ask Now

http://pcss.invisionzone.com/register
PCSS is a collaborative effort led by the American Academy of Addiction Psychiatry (AAAP) in partnership with:

<table>
<thead>
<tr>
<th>Addiction Technology Transfer Center</th>
<th>American Society of Addiction Medicine</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Academy of Family Physicians</td>
<td>American Society for Pain Management Nursing</td>
</tr>
<tr>
<td>American Academy of Pain Medicine</td>
<td>Association for Multidisciplinary Education and Research in Substance use and Addiction</td>
</tr>
<tr>
<td>American Academy of Pediatrics</td>
<td>Council on Social Work Education</td>
</tr>
<tr>
<td>American Pharmacists Association</td>
<td>International Nurses Society on Addictions</td>
</tr>
<tr>
<td>American College of Emergency Physicians</td>
<td>National Association for Community Health Centers</td>
</tr>
<tr>
<td>American Dental Association</td>
<td>National Council for Behavioral Health</td>
</tr>
<tr>
<td>American Medical Association</td>
<td>The National Judicial College</td>
</tr>
<tr>
<td>American Osteopathic Academy of Addiction Medicine</td>
<td>Physician Assistant Education Association</td>
</tr>
<tr>
<td>American Psychiatric Association</td>
<td>Society for Academic Emergency Medicine</td>
</tr>
<tr>
<td>American Psychiatric Nurses Association</td>
<td></td>
</tr>
</tbody>
</table>