

Healing Groups for People Living with Chronic Pain

Mind-Body Medicine at the
Full Circle Center for Integrative Medicine

A Proven Approach

- o Pain. 1992 Mar;48(3):339-47. Comparison of cognitive-behavioral group treatment and an alternative non-psychological treatment for chronic low back pain. Nicholas MK, Wilson PH, Goyen J. The combined psychological treatment and physiotherapy condition displayed significantly greater improvement than the attention-control and physiotherapy condition at post-treatment on measures of other-rated functional impairment, use of active coping strategies, self-efficacy beliefs, and medication use. These differences were maintained at 6 month follow-up.
- o **Cognitive-Behavioral Therapy for Somatization and Symptom Syndromes: A Critical Review of Controlled Clinical Trials**
K Kroenke, R Swindle, *Psychotherapy and Psychosomatics* 2000;69:205-215 (DOI: 10.1159/000012395)
- o Pain. 1995 Nov;63(2):189-98. Relaxation and imagery and cognitive-behavioral training reduce pain during cancer treatment: a controlled clinical trial. Syrjala KL, Donaldson GW, Davis MW, Kippes ME, Carr JE.
- o Arthritis Care Res. 1993 Dec;6(4):213-22. Cognitive-behavioral treatment of rheumatoid arthritis pain: maintaining treatment gains. Keefe FJ, Van Horn Y.
- o Altern Ther Health Med. 1998 Mar;4(2):67-70. A pilot study of cognitive behavioral therapy in fibromyalgia. Singh BB, Berman BM, Hadhazy VA, Creamer P.
- o J Pediatr. 2002 Jul;141(1):135-40. Physical therapy and cognitive-behavioral treatment for complex regional pain syndromes. Lee BH, Scharff L, Sethna NF, McCarthy CF, Scott-Sutherland J, Shea AM, Sullivan P, Meier P, Zurakowski D, Masek BJ, Berde CB, and many others. . . .

Session 1 Outline

Staff Introductions

Review course format, group expectations – every other week for 10 sessions, then “aftercare”, probably once a month

Introduce Diaphragmatic breathing

Understanding Pain – The Physiology of Pain

Integrative Pain Management

Diagnosis

Treatment of underlying causes

Medical treatment of pain

Mind/body/spirit medicine for pain management

Introductory Session: didactic (Connie will drone on and on)

Future groups more interactive/experiential:

Relaxation Response Exercise

Check-in

Medical Presentation

CBT exercise

Med check

Closure/Relaxation Response

Course Format

- o Homework – pain diaries, other
- o Comfort issues - Feel free to stand or move when you need to
- o Confidentiality issues - We will not discuss particulars of your medication use or your medical problems with the group unless you indicate willingness to do so, but we encourage participants to do this

Diaphragmatic Breath Awareness

Acute Pain - Adaptive:

Indicates tissue injury

Initiates protective behavior

Chronic Pain - Maladaptive:

Signal no longer related to acute trauma/injury

Ongoing message is harmful, not protective

Effects of Chronic Pain

- o Physical – stress of chronic pain, interrupted sleep, poor wound healing, decreased immunity
- o Psychological – emotional suffering, depression, isolation, self-medication
- o Spiritual – a reminder of mortality, at times perceived as a punishment or evidence of moral wrongdoing, causes feelings of powerlessness, hopelessness
- o Under treatment of CNP often results in suicide. In a recent survey, 50% of CNP patients had inadequate pain relief and had considered suicide to escape the unrelenting agony of their pain.

Pain Perception: the plot thickens

- o Sensory Nerves
 - o A-delta Fibers – myelinated, 40 mph, well-localized and rapid message, respond to tissue pressure. Fatigue with repeated stimulation.
 - o C Fibers – nonmyelinated, 3 mph, respond to noxious thermal, mechanical, or chemical stimuli. Slow message, poorly localized. Sensations are perceived as dull, aching, burning, and have input that does not fatigue or extinguish with repeated stimulation.
- o Sensitization – chemical mediators from inflammation or injured tissue can sensitize small fibers, so that non-painful stimuli will be perceived as painful.
- o Spinal Cord
 - o Modulation: Transmitting cells are influenced by multiple signals coming in from periphery as well as inhibitory messages coming down from the brain (serotonin, norepinephrine, endorphin)
- o Brain
 - o Can tonically amplify or suppress the messages coming in from the periphery
 - o Gives meaning to the pain experience
 - Differences in pain levels of victims of automobile accidents vs. those responsible for the accident
 - Carolyn Myss insights, etc.

Gate Control Mechanism/Theory and Implications

Imagine. . .

- o The brain has messages coming in and has caller ID.
 - o It can screen calls
 - o Some callers are filtered out altogether
 - o Some callers are amplified

The messages reaching the brain depend not just on what is happening in the outside world, but also on how the messages are transmitted.

The more we understand this system, the more opportunities we have for interrupting pain messages

For instance: Mechanical Stimuli Can Decrease Pain Sensation

Integrative Pain Management - Pain may be mandatory, but suffering is optional

The Rules of Tacks

1. If you are sitting on a tack, it takes a lot of aspirin to make the pain go away.
2. If you are sitting on 2 tacks, removing one does not lead to a 50% improvement in symptoms.

-Syd Baker, M.D.

Corollaries to the Rule of Tacks

Accurate diagnosis is important - Do not rush to control symptoms and ignore the message about an underlying health problem

Remove tacks where possible, i.e. treat underlying causes

Surgical treatment

Physical therapies

Specific medical treatment for neuropathy, systemic inflammation related to gut disturbances, etc.

Sleep, hormonal influences on tissue healing

Counseling - History of trauma

Symptom Management: Medical Treatment of Pain

Step 1: Non-Opioid Analgesics

Aspirin

Tylenol

Other NSAIDs

Tylenol toxicity

Chronic tylenol ingestion of 4 g per day (8 vicodin) can produce liver damage

Lesser doses can be toxic when fasting/not eating well or when consumed in conjunction with alcohol

Adverse effects of NSAIDs:

Gastrointestinal bleeding and gastric ulceration

Increased intestinal permeability

Promotion of bone necrosis and cartilage destruction

Inhibition of cartilage synthesis

Promotion of hepatic and renal injury and failure

Death

NSAIDs Impair Joint Repair

In vivo studies with NSAIDs at physiologic concentrations have shown that several NSAIDs reduce GAG synthesis. Suppression of COX shunts arachidonate into leukotrienes, which promote painless “silent” inflammation. Intestinal injury also may accelerate joint injury

Adjunctive Medications

Topical – lidocaine, capsaicin, antiinflammatories,
other
Antidepressants

Anticonvulsants
Antiarrhythmic drugs
Ultram

Antidepressants for Pain

- o Work by affecting neurotransmitters
- o Do not only work for treating pain by improving depression.
 - o Work as well in non-depressed people as in people with depression
 - o Effectiveness for pain does not correlate with effectiveness for depression
- o Do not work for all types of pain.

Opioids in Chronic Pain Management

Benefits and Risks

Side effects: constipation, sleep disruption, altered mental status, itching, nausea, respiratory depression

Addiction vs. Dependence

Assessing whether medication improves quality of life and participation in life or diminishes them

Questions to Ask:

- o *Is the person's day centered around taking medication?*
- o *Does the person take pain medication only on occasion, perhaps three or four pills per week?*
- o *Have there been any other chemical (alcohol or drug) abuse problems in the person's life?*
- o *Does the person in pain spend most of the day resting, avoiding activity, or feeling depressed?*
- o *Is the person able to function (work, household chores, and play) with pain medication in a way that is clearly better than without?*

Signs Someone is Being Harmed more than Helped by Pain Medication

- o Sleeping too much or having days and nights confused
- o Decrease in appetite
- o Inability to concentrate or short attention span
- o Mood swings (especially irritability)
- o Lack of involvement with others
- o Difficulty functioning due to drug effects
- o Use of drugs to regress rather than to facilitate involvement in life
- o Lack of attention to appearance and hygiene

Timing

Short-acting/Rescue medications: codeine, hydrocodone, oxycodone, morphine

Long-acting narcotics: Need to be dosed on a schedule, not prn

- Fentanyl patches (Duragesic)
- Methadone
- MS Contin
- OxyContin

Making Use of the Mind-Body Connection in Chronic Pain Management

Stress and the General Adaptation Syndrome (GAS)

- o The Response to Stress, in 3 Phases:
 - o Alarm Reaction
 - o Stage of Resistance
 - o Stage of Exhaustion

Alarm Reaction: Fight-or-Flight

- o Evolutionary Role: escape from predator or acute physical danger
- o Physiological changes: Adrenal hormones adrenaline (epinephrine) and norepinephrine
 - Metabolism increases, Heart rate increases, Blood Pressure increases, Breathing Rate increases, Muscle Tension increases

Stage of Resistance

- o **HPA (hypothalamo-pituitary-adrenal axis):** Cortisol increases when stress becomes chronic
 - o Block energy storage and help mobilize energy from storage sites
 - o Increase cardiovascular tone
 - o Inhibit anabolic processes such as growth, repair, reproduction and immunity

Adrenal Exhaustion – “Out of GAS”

Coping responses cannot sustain their response if stressor is sufficiently severe and prolonged
“Diseases of adaptation” may arise: Hypertension, Ulcers, Heart disease
Symptoms that disappeared during the stage of resistance may reappear
Death possible

Physical and Psychological Side Effects of Stress

The body cannot distinguish physical danger from psychological threat
For most modern stressors, the value of increased heart rate, increased muscle tone, etc. is less, and those changes are not utilized for physical exertion, leaving the organism aroused without a release

Maladaptive Symptoms with Acute Stress Hormones

Cold Hands and Feet
Palpitations

Diarrhea or Constipation
Decreased sleep

Maladaptive Changes with Chronic Stress

Worsened blood sugar control/inc insulin resistance
Increased visceral fat deposition (apple-shaped wt gain)

Increased inflammation
Decreased immunity

Documented Relationship of Illness to Chronic Stress

Susceptibility to the common cold correlates with psychological stress
Timing of heart attacks

Blaming or Taking Responsibility

- o Understanding the importance of stress in our medical conditions gives us the power to use stress management to decrease illness and change our experience of it
- o This concept should not be used to blame people for their illnesses

Mind-Body and Body-Mind Interactions in Chronic Pain

How Emotions and Stress Affect Chronic Pain

- o Chronic muscle tension in response to stress can cause pain in a non-injured body part
- o Neurogenic inflammatory response: the nervous system can actually cause tissue damage in response to pain messages
- o Altered sleep can cause chronic pain, as can depression

How Chronic Pain Affects Emotions and Stress

- o Body tension is perceived as emotional by the brain
- o Secondary effects on:
 - o Sleep
 - o Disability and financial fall-out
- o Side effects of treatments

The Relaxation Response

- o Counterbalancing mechanism to the Fight-or-Flight Response
 - o Metabolism decreases, Heart rate decreases, Blood Pressure decreases, Breathing Rate decreases, Muscle Tension decreases
- o May be consciously elicited
- o Generally needs to be practiced

Benefits of the Relaxation Response

- o Immediate: Getting through procedures and short-term stress
- o Long-term: Used consistently, there are carry-over effects

Program Overview

or, How you can learn to manage stress and maximize joy

Relaxation Response

Cognitive restructuring, Coping, Stress Hardiness

Nutrition

Exercise/Body Awareness

Spirituality

Techniques Which Can Elicit the Relaxation Response

- o Diaphragmatic Breathing
- o Meditation
- o Body Scan
- o Mindfulness
- o Repetitive exercise
- o Repetitive prayer
- o Progressive muscle relaxation
- o Yoga Stretching
- o Imagery
- o (Music)

Common Elements of Techniques Used to Elicit the Relaxation Response

- o Focusing of attention through repetition of words or physical activity
- o Passive disregard of everyday thoughts when they occur, and return to the repetition

Common Problems

No time

Restlessness

Falling Asleep

Noises

Thoughts

Anxiety

“Old Stuff” surfacing

Insomnia

Increase in Dreaming

“Doing it right” – perfectionism

Changes in bodily perceptions

Cognitive Behavioral Therapy

Feeling Worse

- o Common when beginning to identify what you are experiencing, both physically and emotionally.
- o Remember this for the future: changing your awareness changes the pain experience.

Homework for the First Session

- o Pain diary, Bimonthly feedback form
- o Practice Relaxation Response 20 minutes per day (in 1 or 2 sessions)
- o Self-portrait exercise
- o Read Chapter 1 in Managing Pain Before it Manages You

Self Portrait Exercise

- o Draw a picture of you and your pain, using crayons or colored pencils, or describe this in words
- o Then draw or describe yourself as you intend to be in the future