Utilizing Behavioral Health for the Treatment of Pain

ERIC LAKE, LLP, CADC

MARY FREE BED PAIN REHABILITATION CENTER

Objectives

- Define and describe Behavioral Health
- Identify common dysfunctional patterns of thinking and behavior related to pain
- Review evidence based behavioral health interventions for pain
  - CBT and ACT
- Discuss how to effectively work with behavioral health, including referring and supporting a patient in behavioral health treatment

Why utilize psychological intervention?

- Pain ***always*** has a psychological component
- How a patient responds to pain depends upon a variety of factors including: (Schenk, 2014)
  - Past Experience
  - Expectations
  - Beliefs
  - Fear
  - Physical Condition
  - Countless Individual Factors

Why does this matter?

- The pain experience is individual, based on immeasurable complex variables
- A patient's response to treatment may be dictated by factors outside physiology

What is Behavioral Health

- Often used interchangeably with "Mental Health"
- Includes multiple professional disciplines
  - Psychologists, Social Workers, Licensed Professional Counselors, Addictions Counselors
  - May **not** have experience or training in the treatment of pain
  - Many different professional orientations, i.e. Adlerian, Cognitive Behavioral Therapy (CBT), Dialectical Behavioral Therapy (DBT), Art Therapy, etc..

What do we do?

- Help patients to develop a better understanding of how they think, and why they do what they do
  - Help patients to see connections between aspects of their life
- Address dysfunctional patterns of thinking and behavior that are negatively effecting their life
- Provide education on their current conditions and issues
- Help patients to develop more effective skills for dealing with current issues (coping skills)
  - Thinking
  - Behavior

Pain Psychology vs. Supportive Counseling

Pain Psychology

- Knowledgeable about pain neuroscience
- Likely time limited
- Frequently part of larger organizations or multidisciplinary teams
- Limited access

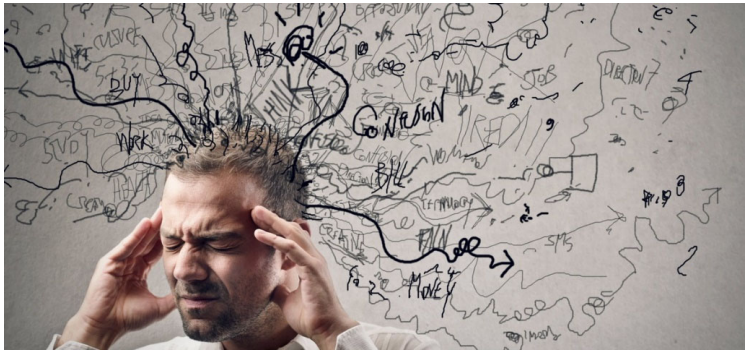
Supportive Counseling

- Limited or no training specific to pain
- May be long term
- Likely to see depression, anxiety, stress management, etc. more frequently
- May benefit from a more targeted referral to address dynamics seen in Primary Care

Dysfunctional Pain Beliefs

E.R.A.S.E. Emotions/Reflections

"Beliefs about the nature of pain, fears of hurting, harming and further injury, and self-efficacy beliefs are the most important beliefs to consider." (Main, 2010)



Dysfunctional Beliefs: Fear

- Pain related ***fear*** can be more disabling then pain itself!
  - Fear of pain
  - Fear of physical activities that cause pain
  - Fear of re-injury
- *Measurements of fear are better predictors of disability then imaging or other "physical" measurements (including pain ratings)* (Crombez, 1998)

Fear of Pain

E.R.A.S.E. Emotions/Reflections

- **What you may see:** Extremely limiting behavior, increased time in bed, reduced leisure and social activity, missed work, not taking care or responsibilities, rumination on pain, and its effect on life.
- **What the Patient may say: "***Pain has cost me so much, I cant even take my children to the park any more… it hurts too bad." "There is no way I can do _____ any longer." "I am afraid it will hurt."*
- **What you can do:** Provide education "*Disk degeneration is very common in someone your age.*", Challenge Beliefs "Even if things may cause some increased pain, that does not mean you are doing increased damage." Don't scare the patients- use objective (neutral) terms, provide appropriate support.
- **What I do:** Explore the impact of, and response to pain on patients values, encourage behavioral experimentation, highlight unhelpful thinking that leads to problem behavior, compare pattern of thinking with reality

The Case of Mark

- **The case of Mark and Disc Degeneration**

Age (Years)	20	30	40	50	60	70
Disc Degeneration MRI finding	37%	52%	68%	80%	88%	93%

Brinjiki W, et al. Am J Neuroradial. 2015, 36 811-816

Catastropization

E.R.A.S.E. Emotions/Reflections

- **What you may see:** Patient limiting specific behavior, incongruent pain reports, demonstrates strong pain behavior in office, extreme statements regarding pain.
- **What the Patient may say:** *"When my pain is bad it feels like red hot knives being slowly stabbed into my back, it is 11 out of 10 pain, I cant even get out of bed when its that bad."*
- **What you can do:** Reframe catastrophized statements- "So you are having severe lower back pain." Encourage patients to use more objective descriptions of pain, with education why. "Are you actually not able to get out of bed?" Work to reduce catastrophized statements in the office.
- **What I do:** Provide education on how beliefs, and emotions can impact physical health, pain neuroscience education, provide ways to be more objective in descriptions of pain. Work to develop a more objective view of pain, attempting to limit or redirect catastrophized thoughts. Normalize pain (Reframing).

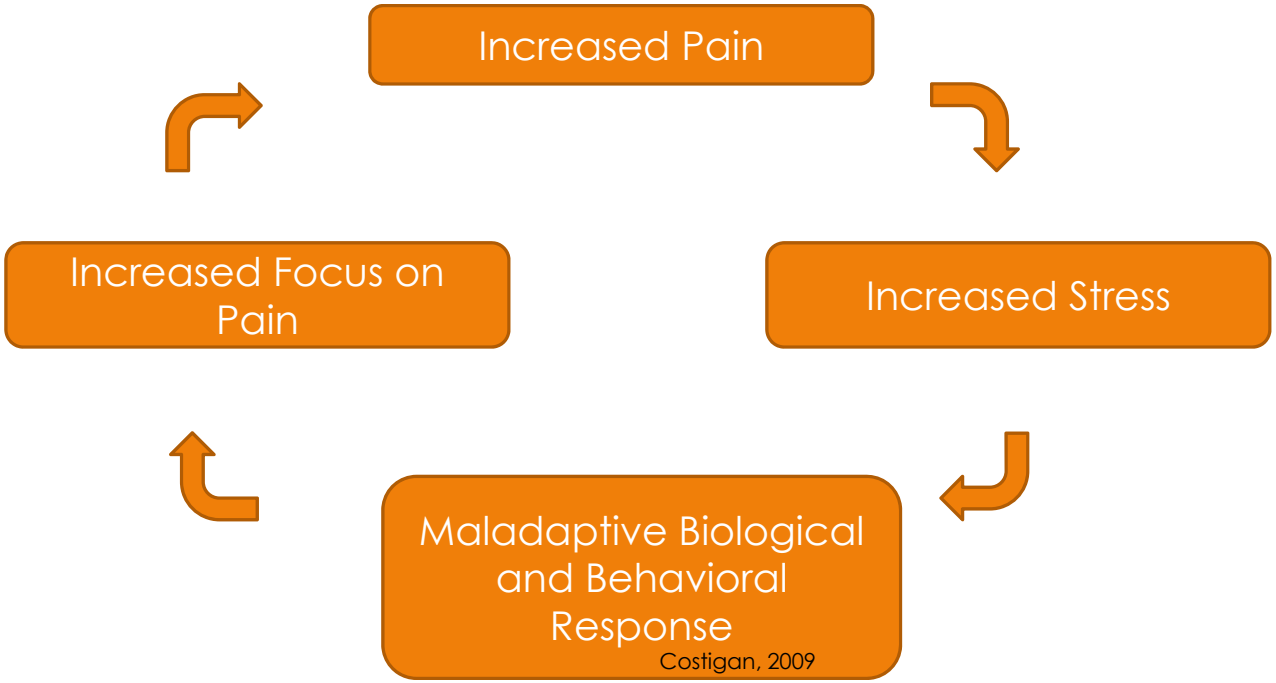
Dysfunctional Pain Behavior

E.R.A.S.E- Actions/Environment

Common Behavioral Changes related to pain

- Decreased leisure activities
- Decreased social interaction
- Missed work
- Reduced contact with family

Duenas, 2016



Costigan, 2009

Avoidance

E.R.A.S.E- Actions/ Environment

- **What you may see:** Substantial changes in activity, reduction in leisure activities, lack of engagement with values, isolative behavior.
- **What the Patient may say:** "I have been stuck at home." "I cant do anything I used to do." "Last time I did PT it hurt, I am not going to do that any longer."
- **What you can do:** Encourage graded exposure to pain *"I would like to walk to the mailbox,"* normalize pain including hurt vs harm "you will notice some soreness," education on how lack of activity impacts mood and physical health.
- **What I do:** In-depth identification and processing of avoidant behavior (is it helpful), identify ways to engage in exposure, work to increase coping skills while engaging in exposure, increase valued based behavior, discuss pacing.

Passive Coping

E.R.A.S.E. Emotions/Reflections/Actions

- **What you may see:** A focus on interventional procedures, multiple attempts or current engagement in many interventions, poor follow through on treatment recommendations.
- **What the Patient may say:** "I have tried everything and nothing works, I just want the pain to go away, but nothing helps."
- **What you can do:** Encourage active coping "*lets discuss one thing you can do today,*" attempt to develop accountability for behavior patient has under their control, education or realistic expectations while discouraging passive coping behavior or interventions "*I don't think additional injections will be effective for you.*"
- **What I do:** Process the ineffectiveness and cost of passive coping responses, provide realistic expectations, challenge beliefs regarding ability to cope, in depth processing of active coping skills from both a physical and emotional perspective.

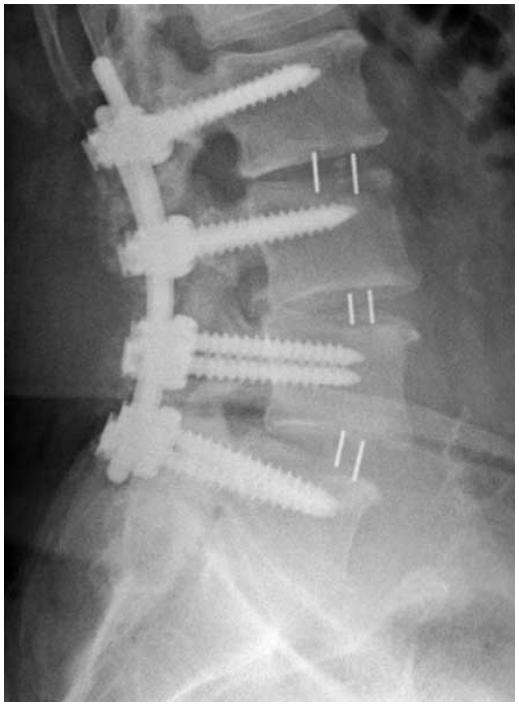
Case Study: Mary

- Mary, a 68 year old female with a diagnosis of chronic pain syndrome
  - Pain for multiple years which started after a car accident in which she was rear ended
  - Pain with certain activities, which appears to be increasing in frequency and duration
  - MRI findings show substantial degenerative changes, patient has previously attempted multiple treatments, PT, Meds, Chiropractor, and injections
  - Patient reports monthly periods in which she will "not be able to do anything" and will experience severe pain, and have some numbness, and tingling
  - Most recent increase in pain resulted in patient being in bed for 2 days after cutting up cabbage while making sauerkraut

The Case of Mary

- Surgical Recommendation:

  Lumbar Fusion



The Case of Mary

- Pain psychology recommendation:

  Buy less cabbage!!!

  Plus doing bunch of other healthy stuff

Sleep Dysfunction

E.R.A.S.E.- Sleep

- **What you may see:** Hypo or Hypersomnia, fatigue, loss of sleep schedule, complaints related to not sleeping.
- **What the Patient may say:** "It hurts to bad to sleep, I am tired all of the time, I cant get comfortable."
- **What you can do:** Provide basic sleep hygiene education and set small goals, "go to bed at the same time, stop napping", sleep hygiene handouts
- **What I do:** Substantial sleep hygiene education, discuss interaction between physical health, mood, and sleep, process sleep related anxiety, formal sleep interventions (CBT-I)

A note on function

- Pain may provide a number of potentially unhealthy functions…
  - Avoidance/Escape
  - Physical or emotional reinforcement contingencies
- Patients may not be aware of why they are engaging in their own behavior
- Functions may develop over time
- Actual or potential removal of these functions can serve to increase anxiety
- Even ***unhealthy*** or ***unhelpful*** behavior often ***serves a function!***

Evidence Based Practice for Pain

- Behavioral health clinicians may use a number of interventions to address pain
- Common Evidence Based treatments used to address pain include…
  - Cognitive Behavioral Therapy (CBT)
    - CBT leads to marked improvements in quality of life indexed by positive changes in disability, psychological distress (principally depression) and, to a lesser extent, pain. (Eccleston, 2013)
  - Acceptance and Commitment Therapy (ACT)
    - Medium effect sizes for pain intensity, depression, anxiety, physical wellbeing, and quality of life (Vehoff et. Al, 2011)

Cognitive Behavioral Therapy (CBT)

- Theorizes that dysfunctional patterns of thinking and behavior are the cause of peoples problems
- Focuses on increasing awareness of patterns of thought and behavior by focusing on images, beliefs, and attitudes that a person holds, and how these things influence how a person behaves, and deals with their problems
- Focuses on helping patients to make changes to their behavior and thinking
- Tends to be short term and goal oriented.
- Typically focuses on reducing pain and distress through modifying physical sensations, catastrophic thinking, and maladaptive behaviors
- Considered "Strong" research evidence for use (APA division 12)

Common CBT Interventions

- **Education**
  - Work to engage patients in treatment by providing justification for services
  - Education on role of brain in as it relates to the source of distress
    - Examples: Explain Pain Model, Pain Neuroscience Education
- **Relaxation Training**
  - Work to help patients develop control over physiological responses that are related to pain development and maintenance
    - Examples: Diaphragmatic Breathing, Progressive Muscle Relaxation, Guided Imagery
- **Functional Analysis**
  - Utilization of operant principles for exploration of antecedents, potential reinforcement and /or punishment contingencies
    - Example: High levels of stress precipitating headache

CBT Interventions cont.

- **Behavioral Experiments**
  - Attempts to test an individuals beliefs about the consequence of engaging or avoiding a behavior
    - *Example: Asking patient to do something they have previously avoided due to pain*
- **Attention Management**
  - Teaching patient skills and techniques to reduce rumination on pain related thinking
    - *Example: Simple distraction, mindfulness*
- **Cognitive Restructuring**
  - Working with patient to change both content and process of thinking
    - Examples: Identification of unhelpful patterns of thought, reduce pain catastrophizing

Acceptance and Commitment Therapy (ACT)

- Theorizes that attempting to change aversive internal experiences, such as chronic pain, are unlikely to be helpful and may increase distress and interference in valued behavior
- Focuses on increasing awareness and nonjudgemental acceptance of all experiences, both negative and positive, identification of values, and appropriate actions toward goals that support those values
- Focus on improving function and decreasing pain interventions
- Acceptance of pain vs. the need to control symptoms
- Considered "Strong" research evidence for use (APA division 12)

ACT Interventions

- **Cognitive Defusion**:
  - Observing thoughts with out evaluation or changing them
  - Example: Helping a patient to notice catastrophization.
- **Mindfulness:**
  - Training to direct thinking to the present moment in a nonjudgmental fashion
  - Example: Directing attention to content of a movie versus discomfort in a seat
- **Values Exploration:**
  - Working with patient to determine what is important and how they want to live their life
  - Example: developing a list of important values and focusing on how patient engages with these values at the current time

Wetherell et all, 2011

Act Interventions cont.

- **Acceptance vs. Control:**
  - Working to develop increased awareness of what patient actually controls, focusing on the impact of current behavior
  - Example: Processing how patient current focus on ridding themselves of symptoms is reducing engagement in things that are important to them
- **Values Exploration:**
  - Working with patient to determine what is important and how they want to live their life
  - Example: Developing a list of valued activities
- **Committed Action:**
  - Working alongside with patient to connect values, goals, actions, obstacles, and strategies
  - Example: Focusing on what a patient can do despite pain

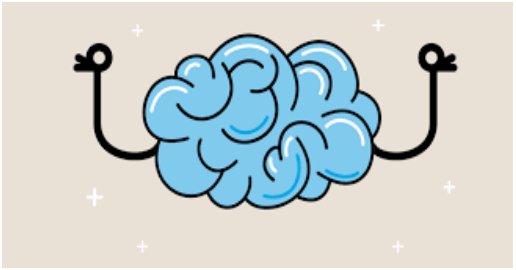
Wetherell et all, 2011

Relaxation Training

- Utilization of formal relaxation exercises to produce the body's natural relaxation response including changes in respiration, decrease blood pressure, etc.
- A number of empirically supported interventions including progressive muscle relaxations, guided imagery, diaphragmatic breathing, etc.
- May be paired with Biofeedback
  - Use of electronic devices providing real time information regarding physiological response
- Requires Practice!!!
- Limited evidence as a stand alone treatment

Mindfulness

- Paying attention in a particular way.
  - With purpose, in the present moment, and nonjudgmentally
- Addresses the brains tendency to focus on pain and respond
- Has been shown to reduce muscle tension
- May help to provide insight into patterns of thinking and behavior
  - I.e. catastrophization, fear, emotional content
- Included in ACT treatment and Mindfulness Based Stress Reduction (MBSR)
- Many different ways to implement, formal vs. informal

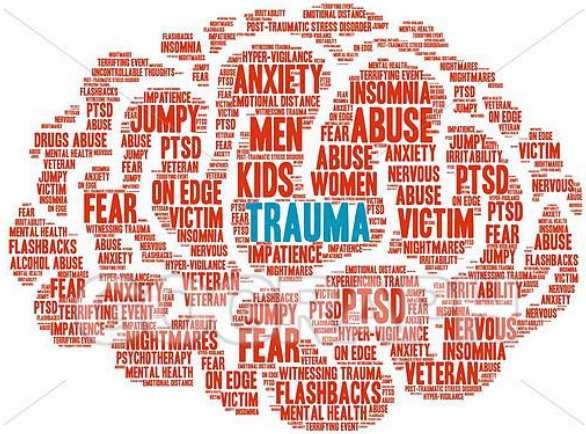


Functional Outcomes

- Psychological Interventions are often less focused on pain reduction and more on increasing function
- Work to identify what a patient ***wants*** versus focusing on their level of pain
  - What is pain preventing them from doing?
- How can patients do things ***despite*** pain?
  - Move in the direction of valued activities
  - Work to help patients develop functional goals
  - *Acceptance of pain is associated with better mood, decreased functional impairment, and decreased pain intensity* *(Ramirez-Maestre C, 2014)*

Trauma and Chronic Pain

- Childhood physical, sexual, and psychological abuse are reported to be risk factors for the adult development of pain conditions such as FM, irritable bowel syndrome, chronic pelvic pain, and temporomandibular joint disorders (TMJ)
- Individuals who have reported exposure to psychological trauma were 3 times more likely to have persistent pain, regardless of the type of trauma (Edwards, 2016).



Who is appropriate for referral

- Anyone with pain has the potential to benefit from Behavioral Health, especially individuals who are not progressing in treatment as expected
- Patients that appear to have high levels of stress
- Those that display substantial pain focused thinking or behavior
- Not everyone with neurogenic pain is mentally ill or unstable (most are not)
  - If there are underlying mental health issues, they will likely interact with their pain condition, and should be addressed
- Individuals with substance use dynamics should be referred for substance use focused treatment
- Trauma history

Effective Referral

- Work to provide evidence to the patient for referral
  - Have the "Its not all in your head" conversation
  - Use resources: Videos "Understanding pain in less than 5 minutes," Lorimer Mosely TED Talk "Why things hurt," "How does your brain respond to pain?" Karen D. Davis
- Make a targeted referral
  - i.e. to address catastrophization, increase activity, decrease anxiety, etc.
- Follow up
  - With both initial referral, and if patient engages in treatment
  - Treat as if a prescription, engage with patient about their treatment
- Communicate with Behavioral Health
  - Make sure you get a ROI, develop relationships with Mental Health providers

Questions?

References

- Schenk LA, Sprenger C, Geuter S, Buchel C; Expectation requires treatment to boost pain relief an fMRI study (2014) *Pain*, Volume 155, Issue 1;150-157
- Duenas M, Ojeda B, Salazar A, Mico JA, Failde I. (2016) A review of chronic pain impact on patients, their social environment, and their health care system. *Journal of Pain Research*. 9:457-467.
- Costigan M, Scholz J, Clifford W. (2009) Neuropathic Pain: A Maladaptive Response of the Nervous System to Damage. *Annual Review of Neuroscience*.32:1-32.
- Main CJ, Foster N, Buchbinder, R; How important are pain beliefs and expectations for satisfactory recovery from back pain?(2010) *Best Practice & Research Clinical Rheumatology*, Volume 24; 205-217

References

- Crombez, G., Vlaeyen, J., Heits, P., Lysens, R. (1999) Pain-Related fear is more disabling than pain itself: evidence on the prole of pain-related fear in chronic back pain disability. *Pain*. 80:329-339.
- Brinkikji, et. Al. (2015) Systematic literature review of imaging features of spinal degeneration in asymptomatic populations. *American Journal of Neuroadiol*. 36(4);811-816.
- Ramirez-Maestre C, Esteve R, Lopez-Martinez.(2014) Fear-Avoidance, Pain Acceptance, and Adjustment to Chronic Pain: A Cross Sectional Study on a Sample of 686 Patient with Chronic Spinal Pain. *Ann. Behav. Med*. 7/:402-410
- Vermani M, Marcus M, Katzman MA. (2011) Rates of Detection of Mood and Anxiety Disorders in Primary Care: A Descriptive, Cross-Sectional Study. *The Primary Care Companion to CNS Disorders*. 13(2):PCC.10m01013. doi:10.4088/PCC.10m01013.

References

- C. Eccleston S., Morley A., C. Williams, (2013) Psychological approaches to chronic pain management: evidence and challenges. *BJA: British Journal of Anaesthesia*, 111(1) 59–63.
- "Treatment: Behavioral and Cognitive Behavioral Therapy for Chronic Low Back Pain." *Society of Clinical Psychology*, www.div12.org/treatment/behavioral-and-cognitive-behavioral-therapy-for-chronic-low-back-pain/.
- "Treatment: Acceptance and Commitment Therapy for Chronic Pain." *Society of Clinical Psychology*, www.div12.org/treatment/acceptance-and-commitment-therapy-for-chronic-pain/.
- Edwards, R., Dworkin, R., Sullivan, M., Turk, D., Wassan, A., (2016) The Role of Psychosocial Processes in the Development and Maintenence of Chronic Pain. *Journal of Pain*. 17 (9)70-92.