COGNITIVE-BEHAVIORAL THERAPY (CBT) AND MINDFULNESS TRAINING FOR CHRONIC PAIN MANAGEMENT

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Three Areas for Presentation Focus

- What is the Biopsychosocial Conceptual Model for an comprehensive understanding of a chronic pain problem
- What is Cognitive-Behavioral Therapy and how can it address the emotional/stress component of suffering with chronic pain
- What is Mindfulness Training and how can it contribute to an improved quality of life for chronic pain patients
The Biopsychosocial Conceptual Model
George Engel, M.D.

The Potential Interactive Factors for the Comprehensive Understanding of Chronic Pain
Conceptual Model of Chronic Pain - Fordyce & Loeser
Biopsychosocial Model of Chronic Pain - Alternative Terms
Introducing the Biopsychosocial Model

The Chronic Pain Management Quiz

1. As pain persists over time, it can easily affect and be affected by:
   A. How we feel physically
   B. How we think
   C. How we feel emotionally
   D. How we act – our lifestyle habits
   E. How others treat us
   F. All the above
Cognitive-Behavioral Therapy and the Emotional/Stress Component of Chronic Pain
Biopsychosocial Conceptual Model – Emotional Influence

EMOTIONAL
- Anxiety
- Depression
  - Hopeless/Helpless
  - Lowered Self-Esteem
- Guilt
- Anger
- Frustration
COGNITIVE

Amount of focus on pain
Amount of focus off pain
Thoughts about pain
  Severity  Danger
  Future    Manageability
Alarming vs. Reassuring Thinking

Biopsychosocial Model – Cognitive Influence
Cognitive-Behavioral Therapy
Empirically Proven Applications

- Depression
- Anxiety Disorders
- Marital Discord
- Substance Abuse
- Eating Disorders
- Social Inadequacy
- Anger Management
- Parenting
- Sexual Dysfunction
- Conduct Disorder
- Hyperactivity
- Chronic Pain Management

CBT Basic Assumptions for Chronic Pain Management

- Responses to unwanted events typically involve our thinking.
- In our thinking we can be more Reassuring that we can manage through the event or our thoughts can be more Alarming, that the event is bigger than we can bear.
- Most commonly the Reassuring Thoughts will have a more calming effect on the body and emotions; the Alarming Thoughts will have a more over-arousing effect on the body & emotions.
- The unwanted event of pain for a person can often become associated with Alarming Thoughts, aggravating suffering.
- CBT can assist a person with identifying and practicing using more Reassuring Thoughts, not adding to suffering but rather stimulating coping.
Cognitive-Behavioral Therapy

Three Major Contributors/Approaches

- Albert Ellis, Ph.D.
  - Rational Emotive Behavior Therapy

- Aaron Beck, M.D.
  - Cognitive Therapy of Depression

- Donald Meichenbaum, Ph.D.
  - Stress Inoculation Training
Cognitive-Behavioral Therapy
Ellis’ A-B-C Conceptual Model

A - Activating Event – stressful situation

B – Beliefs - “self-talk” – thoughts
   - Irrational (Alarming) beliefs
   - Rational (Reassuring) beliefs

C - Consequences – responses
   - Physical
   - Emotional (0-10)
   - Behavioral (Actions)
Cognitive-Behavioral Therapy
Beck’s Cognitive Therapy of Depression

Automatic Thoughts

More situation specific than general beliefs
Just “automatically” come into a person’s mind

Automatic Thought Record

Triple Column Form helpful for self-monitoring
Situation
Responses
Thoughts
| Situation | Responses (Physical, Emotional (0-10), Behavioral/Actions) | Thoughts | | | |
|---|---|---|---|---|
| I've been dealing with ongoing pain for over three years and realizing my spouse has caring taken over what were some of my chores at home even though I didn't ask; I had to stop working and now the money is more tight; I'm not doing as much with the kids | **Physical:**
  Tense all the time
  Very tired
  Not sleeping well

**Emotional 0-10:**
  Guilty (9)
  Low self-esteem (8)

**Behavioral (Actions):**
  Push myself too much on the better days
  Getting up in middle of night when can't sleep and try to get some things done
  Not socializing like used to | I should have a job and be doing all my work at home.
I'm just a burden now, not much of a spouse or parent anymore.
They'd be better off without me
Even my friends won't understand because I look fine to them | | |
CBT Stress Inoculation Approach
Donald Meichenbaum & Dennis Turk, Ph.D.s

- Develop coping thoughts in advance for a recurring stressor such as headache episodes or times of increasing pain (flares)
- Four critical time frames (stages of pain)
  - Before stressor (pain episode or flare)
  - At start of stressor (pain episode or flare)
  - At peak of stressor (pain episode or flare)
  - After stressor (pain episode or flare) has passed
- Use therapy to prepare relevant coping thoughts
- Practice prepared thoughts before stressful time
Stress Inoculation Four Time Frames
Alarming Thoughts Adding Stress to Flare

- **Anticipating the flare**
  - I won’t be able to handle the next flare
  - There won’t be any help for me with the next flare

- **At the start of the flare**
  - This is going to be the worst flare ever. I can tell already
  - Now the pain is going to take over; there’s nothing I can do

- **At the peak (worst part) of the flare**
  - This is unbearable and won’t stop being this intense
  - Nobody can hurt like this for very long; it’s too long already

- **After the flare has passed**
  - I don’t know how I got through that; I can’t cope with these
Stress Inoculation Four Time Frames
Reassuring Thoughts to Manage Flare Stress

- **Anticipating the flare**
  - Sitting and worrying about a flare doesn’t help. What else can I do now that will help? Let me do that now.

- **At the start of the flare**
  - The flare’s here now. It will probably be like the others and gradually decrease. I don’t need to be alarmed.

- **At the peak (worst part) of the flare**
  - Don’t panic. I’ve been though these before; I can do this.
  - It’s running its course; let’s concentrate on something else

- **After the flare has passed**
  - Good. I did it. Let me remember for next time what helped
CBT and Chronic Pain

Critical Literature Review’s Conclusions

- “CBT is the ‘gold standard’ psychological treatment for individuals with a wide range of pain problems. The efficacy of CBT for reducing pain, distress, pain interference with activities, and disability has been established in systematic reviews and meta-analyses” (p. 161)

- “Unfortunately, most individuals with chronic pain never receive CBT. Integration of CBT into medical settings where individuals with chronic pain are commonly seen, especially in primary care settings, offers much promise in both expanding application of CBT and improving outcomes, but such collaborations are just beginning to be studied.” (p. 162)

Mindfulness Training
And
Quality of Life
with Chronic Pain
MINDFULNESS
What It Is

- “Moment to moment non-judgmental awareness” – Jon Kabat-Zinn, Ph.D., U. of Massachusetts Medical Center
- Paying attention fully to the present moment; being open and accepting of whatever’s here and now through all our senses and not only our thoughts
- Being aware of the positives, the negatives, and what’s neutral in the present moment experience
- Being able to refocus on the present when realizing the mind was distracted, preoccupied with unhelpful thoughts, or dwelling more on the past or the future
- Appreciating the “extraordinary in the ordinary” - taking less for granted that is fine just as is
MINDFULNESS
What It *Isn’t*

- Staying preoccupied or dwelling excessively on the past or future - or being unaware our mind is so absorbed
- Running on “autopilot” and not being fully present in our life
- Always multitasking, moving from one “to do” list to another, rarely pausing to just BE
- Being uncomfortable with stillness, quiet, spending time with self
- Overlooking or taking for granted what’s going right, the positives of self/others/world/life
- Refusing to accept and work with the negatives/problems that won’t be going away anytime soon – fighting vs. them
- Challenging the content of thought; not letting thought fade
Mindfulness Training - What is Mindfulness Meditation?

- A proven path to cultivate being more Mindful

- It can be a dedicated and regular time set aside solely to practice and increase skill for being more aware of the present moment through a guided exercise or self-directed process – “formal practice”
  - Might involve fully attending in the present moment to your breathing, entire body, senses, thoughts, emotions

- It can be done laying down, sitting, walking, eating, stretching, or in any everyday activity (“informal practice”)

- Very effective 8 week program – *Mindfulness-Based Stress Reduction (MBSR)* introduced by Jon Kabat-Zinn for medical patients at U Mass Med Cen; now used world-wide
Mindfulness Meditation
Strategies for Pain Management I

- Accepting and not fighting against the area of pain or always working to make the pain be gone
- Softening into the area of discomfort rather than bracing against it or tensing around it
- Recognize the areas of the body continuing to function well
- Being aware of the overly negative thoughts that can get attached to the pain and identify less with them by giving them less attention (“letting go”)
Mindfulness Meditation
Strategies for Pain Management II

- Expanding awareness of the body and present moment experience and not having attention locked on more exclusively to the uncomfortable sensations; recognize the areas of the body continuing to function well

- If attention keeps coming back to the painful area, no longer try to wall it off, deny it, or fight against it; look to relate to it differently, to work with it and to allow it space rather than try to make it go away or to stop hurting in this moment

- Softening into the area of discomfort rather than bracing against it or tensing around it

- Being aware of the overly negative thoughts that can get coupled with the pain without believing the thoughts as facts or adding to their narrative
MBSR
Empirical Support

Improved Quality of Life and Coping for:

- Depression
- Anxiety
- Binge Eating
- Substance Abuse Relapse Prevention
- Anger Management
- Self-Esteem Problems
- Chronic Pain Management
Mindfulness and Chronic Pain

Mindfulness Based Stress Reduction (MBSR) Study

- Randomized controlled clinical trial investigating the effects of mindfulness vs wait list control for chronic pain patients. Wait list patients had all received “standard treatment” at a pain clinic for 6-12 week or less intervals with medication regimens that had been adjusted and set.

- 109 patients with serious long-term chronic pain (variety of locations)

- Assessment Measures: SF36 Vitality Scale (primary outcome measure), the Brief Pain Inventory, Hospital Anxiety and Depression Scale, Coping Strategies Questionnaire (CSQ), and Chronic Pain Acceptance Questionnaire. Administered before intervention, immediately after treatment, and at 6 months follow-up.

- Study found that mindfulness meditation, modeled on the MBSR protocol, had significantly positive effects on lives of chronic pain patients, their pain acceptance (i.e. engaging in activities in spite of pain), and general anxiety when compared with wait list control group, with gains maintained into follow-up.

Recent Controlled Study Comparing MBSR vs CBT vs "Usual Care"

- Randomized clinical trial of 342 adult low back pain participants aged 20-70 in an integrated health care system (Group Health) in Washington State.

- Outcomes Measures: modified Roland Disability Questionnaire (RDQ), Back Pain Bothersomeness Scale, PHQ-8, GAD-2, Graded Chronic Pain Scale, Patient Global Impression of Change Scale, and Short-form Health Surveys. Outcomes assessed at 4, 8, 26, and 52 weeks.

- Results found significantly greater improvement in back pain and functional limitations in MBSR and CBT groups vs Usual Care, with gains maintained throughout follow up. No significant differences were found between MBSR and CBT groups on outcome measures.

Summary & Conclusions

- The Biopsychosocial Model is very useful for the comprehensive understanding of chronic pain
- Cognitive Behavioral Therapy is an effective treatment for the emotional/stress component of chronic pain
- Mindfulness Training can significantly contribute to improved quality of life with chronic pain
- Strongly consider integrating your care of the chronic pain patient with professionals skilled in offering CBT and/or Mindfulness Training
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