Behavioral Interventions for Pain

July 24, 2025

Rebekah Kintzing, PsyD

Licensed Clinical Psychologist Boise VA Medical Center





Learning Objectives

- Provide overview of Evidence Based Psychotherapies (EBPs) for chronic pain management
- 2. Discussion of common challenges integrating EBPs and/or behavioral health into chronic pain management
- 3. Recommendations for discussing and encouraging behavioral strategies to patients in pain clinics



Background ¹

- Biomedical interventions often have limited long-term benefit and higher risk for adverse events for individuals living with chronic pain
- Nonpharmacologic and noninvasive therapies are among the first and second-line treatments recommended by current guidelines for chronic pain
 - First-line options include EBPs, exercise, physical therapy, and non-opioid medications
- EBPs that have demonstrated efficacy for improving chronic pain outcomes include cognitive behavioral therapy (CBT), acceptance and commitment therapy (ACT), and mindfulness-based stress reduction (MBSR)



What do we mean by "Evidence-Based" Psychotherapy?

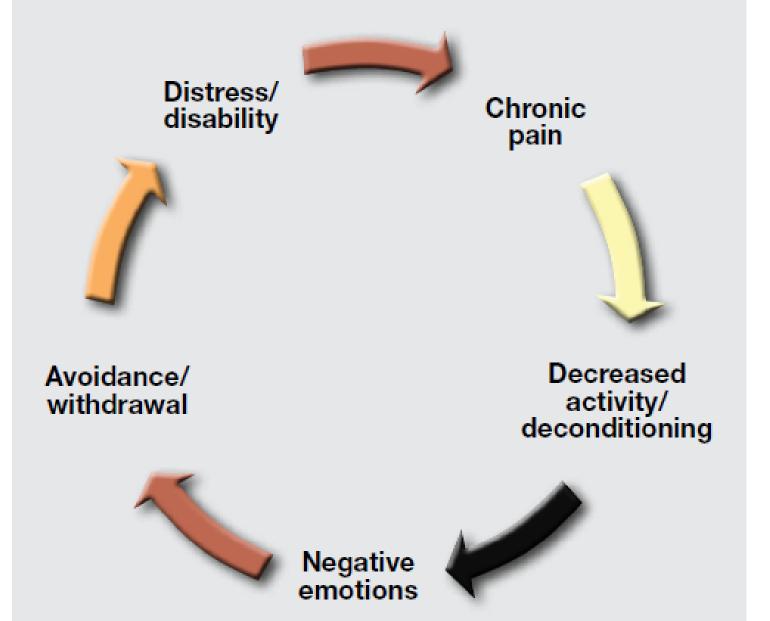
- EBP relies on peer-reviewed, scientific research combined with individual client preferences or needs
- 1998 Criteria: Strong, Modest or Controversial strength of research support ¹
- EBPs are shown to be efficacious and cost-effective for a wide range of psychiatric conditions²

Cognitive Behavioral Therapy for Chronic Pain (CBT-CP)

- Time-limited therapeutic intervention that focuses on the relationship between cognitions (thoughts), emotions (feelings), and behaviors
- Goals include improvements in functioning (emotional and physical), increased use of coping skills, reduced pain intensity, and improved quality of life
- Encourages veterans to adopt an active, problem-solving approach to cope with challenges associated with chronic pain
- Strong research support for chronic pain and depression 1









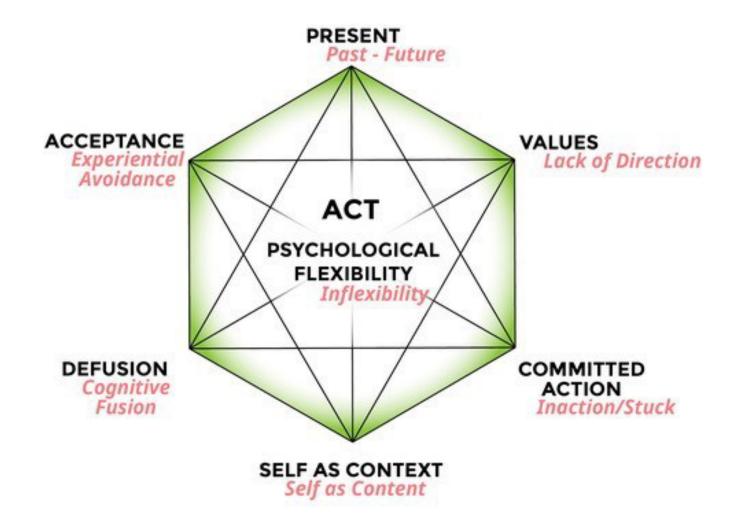


Acceptance and Commitment Therapy (ACT)

- "Third-wave cognitive behavioral therapy that uses acceptance, mindfulness, commitment and behavior change strategies to increase psychological flexibility
- Goals include:
 - Accepting experiences instead of rejecting them because they may cause pain
 - Choosing behaviors mindfully vs. allowing automatic or conditioned responses
 - Taking action and having agency in your life, rather than becoming paralyzed by unpleasant thoughts, memories, or physical sensations
- Strong research support for chronic pain and depression 1



Components of ACT







Mindfulness Based Stress Reduction

- Developed by Jon Kabat-Zinn in the 1970's to cope with physical and emotional illness or difficulties ¹
- MBSR is a modern, scientific-based perspective to traditional Buddhist principles of mindfulness and meditation. MBSR combines core concepts of cognitive therapy with training in mindfulness meditation, body scans, and movement.
- Goals include decreasing cognitive reactivity and meeting distressing experiences (i.e., thoughts, feelings, pain) with patience, kindness, curiosity, and empathy.
- *Strong* research support for depression ²



Pain and Health Benefits of MBSR

- Significant reduction in pain symptoms, mood concerns, and negative body image for chronic pain patients 1
- Decreased pain sensitivity ² and unpleasant associations of pain³
- Increased focus on the present moment, and decreased worry and rumination $^{4,\,5}$
- Improved memory, cognitive flexibility, and self-awareness. Reduced symptoms of anxiety, depression, and suicidal ideation in veterans 6
- Improved sleep quality and reduced insomnia ⁷
- Kabat-Zinn et al., 1985 5. Goyal, et al., 2014
- Zeidan et al., 2018 6. Serpa et al., 2014
- Gard et al., 2012
 - 7. Chen et al., 2020 Gu et al., 2015







Barrier: Pain Knowledge and Beliefs ¹

- Belief that a specific pain diagnosis or cure should be found:
 - ➤ Pain Psychology can facilitate acceptance when there is no specific or single cure and help move towards increased quality of life.
- Lack of awareness or understanding of pain triggers:
 - > Behavioral health and mindfulness strategies can enhance knowledge and awareness of the individual pain experience and increase options for proactively managing pain.
- Lack of awareness of biopsychosocial factors in the pain experience or pain expression:
 - ➤ Behavioral Health support can enhance toolbox of active coping skills including regulation and predictability with movement and physical activity, nervous system regulation, and de-catastrophizing the impact of pain on thinking and mood



Barrier: Therapy Knowledge and Beliefs

- One recurring barrier to CBT, MBSR, and ACT for Chronic Pain is a mismatch between patient knowledge and beliefs about pain and EBP principles:
 - "CBT questions the validity of pain experience or implies that chronic pain was due to a character weakness needing correction."
 - "So, you are going to teach me how to think or talk or breathe my way out of pain?"
- Include in pain education: BH pain management skills are for everyone! These resources should not be offered as a lastditch effort when someone has "failed" all other options. Rather, BH is a first-line complement to your comprehensive treatment plan.



Incorporating BH into Pain Clinics or Pain Education ¹

- Integrating BH directly into specialty care settings may increase efficiency and enhance engagement in EBPs for chronic pain management
- Simplifying referral pathways and removing lines separating treatments for mental and physical health may reduce barriers and address resistance



Key Points and Pearls

- CBT, ACT, and MBSR are empirically based, efficacious, and cost-effective behavioral therapies for chronic pain management.
- Behavioral management and EBPs are often recommended as a first-line and/or concurrent pain management options, rather than a "last-ditch" effort.
- Discussion of behavioral management and active coping is for everyone experiencing chronic pain.
- Successful buy-in and engagement is enhanced with accurate knowledge, beliefs, and expectations about both chronic pain and behavioral therapy.



References

Acceptance and Commitment Therapy for Chronic Pain | Society of Clinical Psychology. (2017, March 6). Div12.org. https://div12.org/treatment/acceptance-and-commitment-therapy-for-chronic-pain/

Chambless, D. L., & Hollon, S. D. (1998). Defining empirically supported therapies. Journal of Consulting and Clinical Psychology, 66(1), 7–18. https://doi.org/10.1037/0022-006x.66.1.7

Chen, T.-L., Chang, S.-C., Hsieh, H.-F., Huang, C.-Y., Chuang, J.-H., & Wang, H.-H. (2020). Effects of mindfulness-based stress reduction on sleep quality and mental health for insomnia patients: A meta-analysis. Journal of Psychosomatic Research, 135(1), 110144. https://doi.org/10.1016/j.jpsychores.2020.110144

Cook, S. C., Schwartz, A. C., & Kaslow, N. J. (2017). Evidence-Based Psychotherapy: Advantages and Challenges. Neurotherapeutics, 14(3), 537–545. https://doi.org/10.1007/s13311-017-0549-4

Gard, T., Hölzel, B. K., Sack, A. T., Hempel, H., Lazar, S. W., Vaitl, D., & Ott, U. (2012). Pain attenuation through mindfulness is associated with decreased cognitive control and increased sensory processing in the brain. Cerebral Cortex, 22(11), 2692–2702. https://doi.org/10.1093/cercor/bhr352

Goldsmith, E., Koffel, E., Ackland, P., Hill, J., Landsteiner, A., Miller, W., Stroebel, B., Ullman, K., Wilt, T. J., & Duan-Porter, W. (Denise). (2021). Implementation of Psychotherapies and Mindfulness-based Stress Reduction for Chronic Pain and Chronic Mental Health Conditions: A Systematic Review. In PubMed. Department of Veterans Affairs (US). https://www.ncbi.nlm.nih.gov/books/NBK578413/

Goyal, M. (2014). Meditation Programs for Psychological Stress and Well-being. JAMA Internal Medicine, 174(3), 357. https://doi.org/10.1001/jamainternmed.2013.13018

Gu, J., Strauss, C., Bond, R., & Cavanagh, K. (2015). How do mindfulness-based cognitive therapy and mindfulness-based stress reduction improve mental health and wellbeing? A systematic review and meta-analysis of mediation studies. Clinical Psychology Review, 37(37), 1–12. https://doi.org/10.1016/j.cpr.2015.01.006

Johnson, B. (2017, March 6). Behavioral and Cognitive Behavioral Therapy for Chronic Low Back Pain | Society of Clinical Psychology. Society of Clinical Psychology | Division 12 of the American Psychological Association. https://div12.org/treatment/behavioral-and-cognitive-behavioral-therapy-for-chronic-low-back-pain/

Kabat-Zinn, J. (1990). Full Catastrophe Living. Random House Publishing Group.

Kabat-Zinn, J., Lipworth, L., & Burney, R. (1985). The Clinical Use of Mindfulness Meditation for the self-regulation of Chronic Pain. Journal of Behavioral Medicine, 8(2), 163–190. https://doi.org/10.1007/bf00845519

Mindfulness-Based Cognitive Therapy | Society of Clinical Psychology. (2019, April 9). Div12.org. https://div12.org/treatment/mindfulness-based-cognitive-therapy/

Serpa, J. G., Taylor, S. L., & Tillisch, K. (2014). Mindfulness-based Stress Reduction (MBSR) Reduces Anxiety, Depression, and Suicidal Ideation in Veterans. Medical Care, 52(12), S19–S24. https://doi.org/10.1097/mlr.00000000000000202

Zeidan, F., Salomons, T., Farris, S. R., Emerson, N. M., Adler-Neal, A., Jung, Y., & Coghill, R. C. (2018). Neural mechanisms supporting the relationship between dispositional mindfulness and pain. PAIN, 159(12), 2477–2485. https://doi.org/10.1097/j.pain.00000000001344



