

The Efficacy of Non-Pharmacological Management for Chronic Non-Cancer Pain

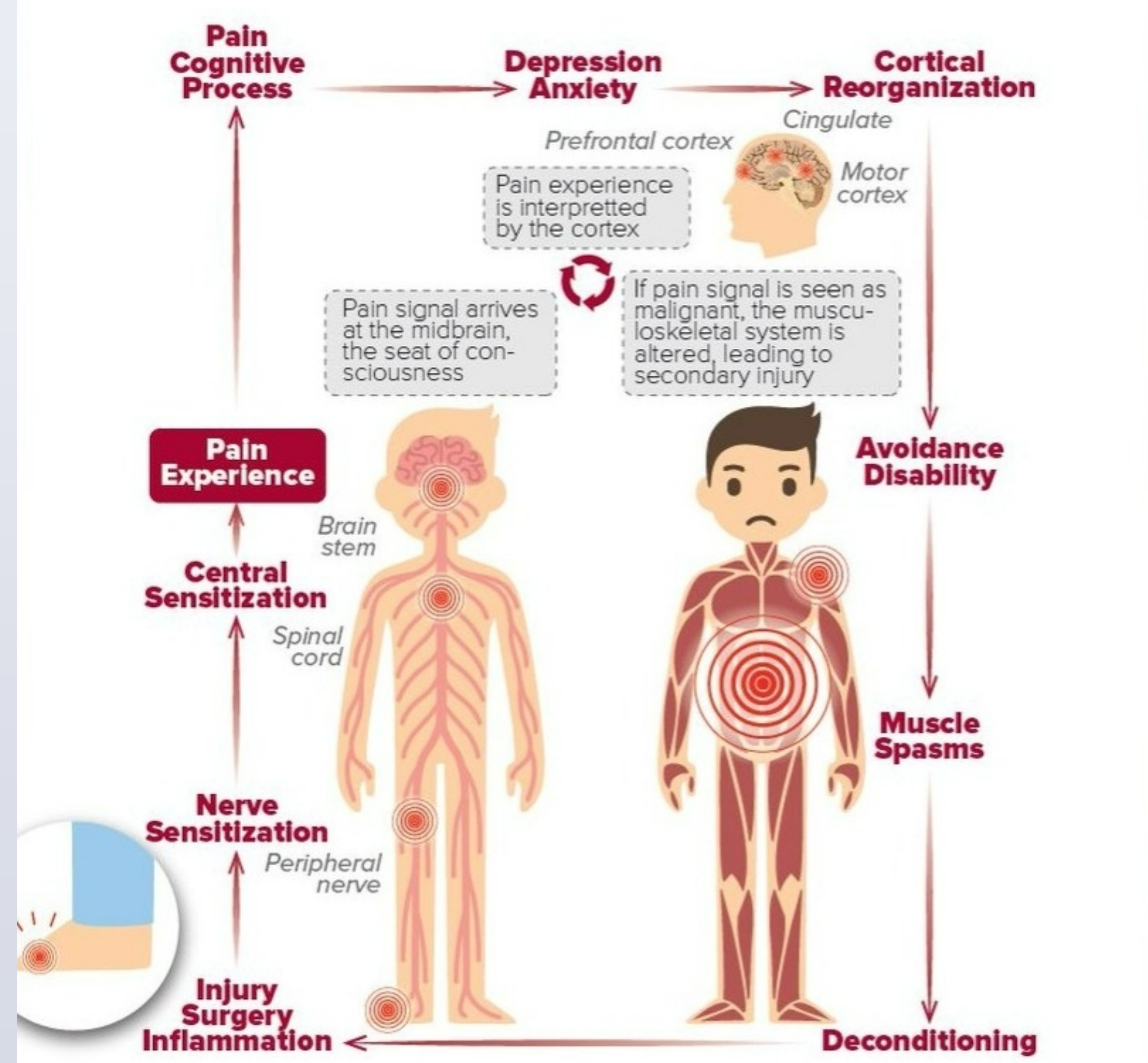
Lauren O'Malley-Singh
College of Health & Human Services' School of Nursing
Salem State University

Abstract & Objective

- Chronic pain is a complex, subjective, persistent, unpleasant sensory and emotional experience that affects > 100 million people in the U.S.
- Chronic pain can occur in the absence of injury, is self-perpetuating and carries significant morbidity and mortality.
- Healthcare costs associated with this disease are upwards of \$635 billion.
- The Center for Disease Control (CDC) acknowledges opioids are not the best way to treat chronic non-cancer pain and they continue to recommend prescribing them for chronic non-cancer pain.
- The purpose of this literature review is to determine the efficacy of complementary and alternative medicine (CAM) in the management of chronic non-cancer pain, with an ultimate goal to shift the collective mind-set around chronic non-cancer pain management, encouraging providers to utilize CAM when managing chronic non-cancer pain.

Pathophysiological Cycle of Chronic Pain

Unlike acute pain, chronic pain is a disease driven by a cyclic process between the nerves, the brain, & the muscles.

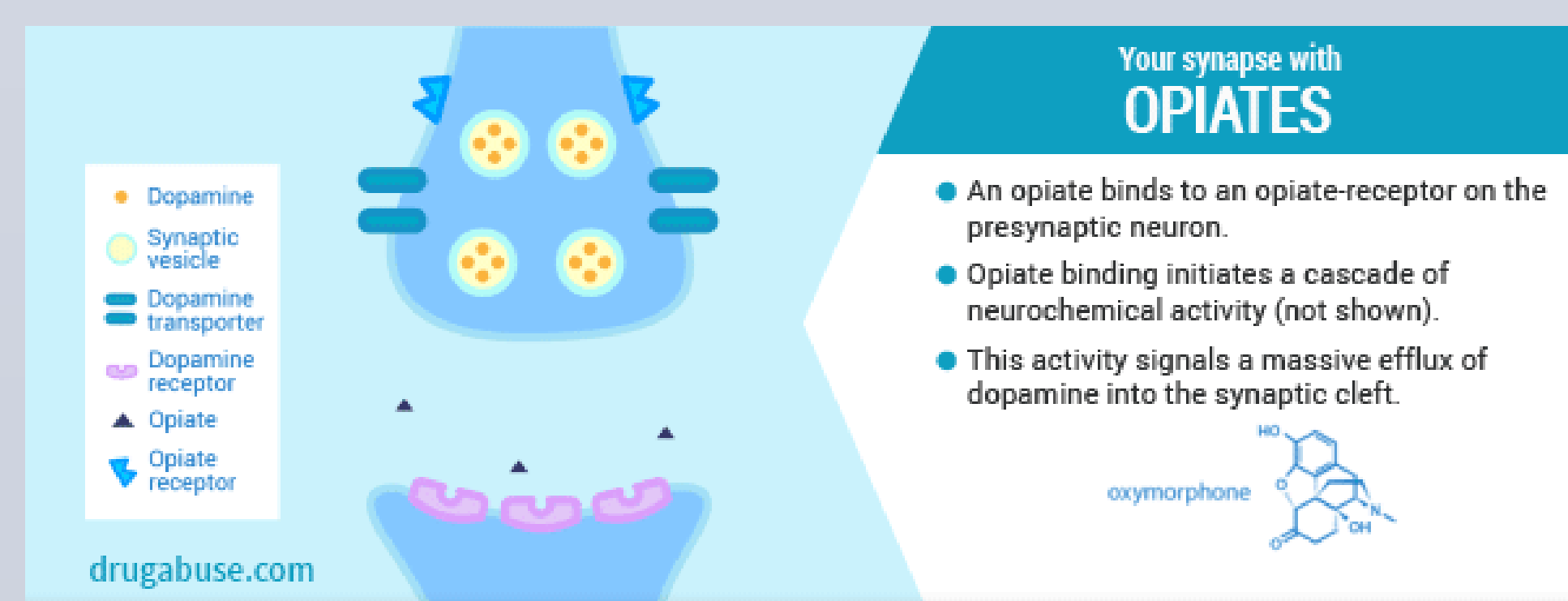


Kao, M. [@drmingkao]. (2018, September 4). [Tweet]. Retrieved from: <https://twitter.com/drmingkao/status/1036850942040203264>

Current Standard of Practice

The CDC (2019c) provides the following guidance on managing chronic non-cancer pain:

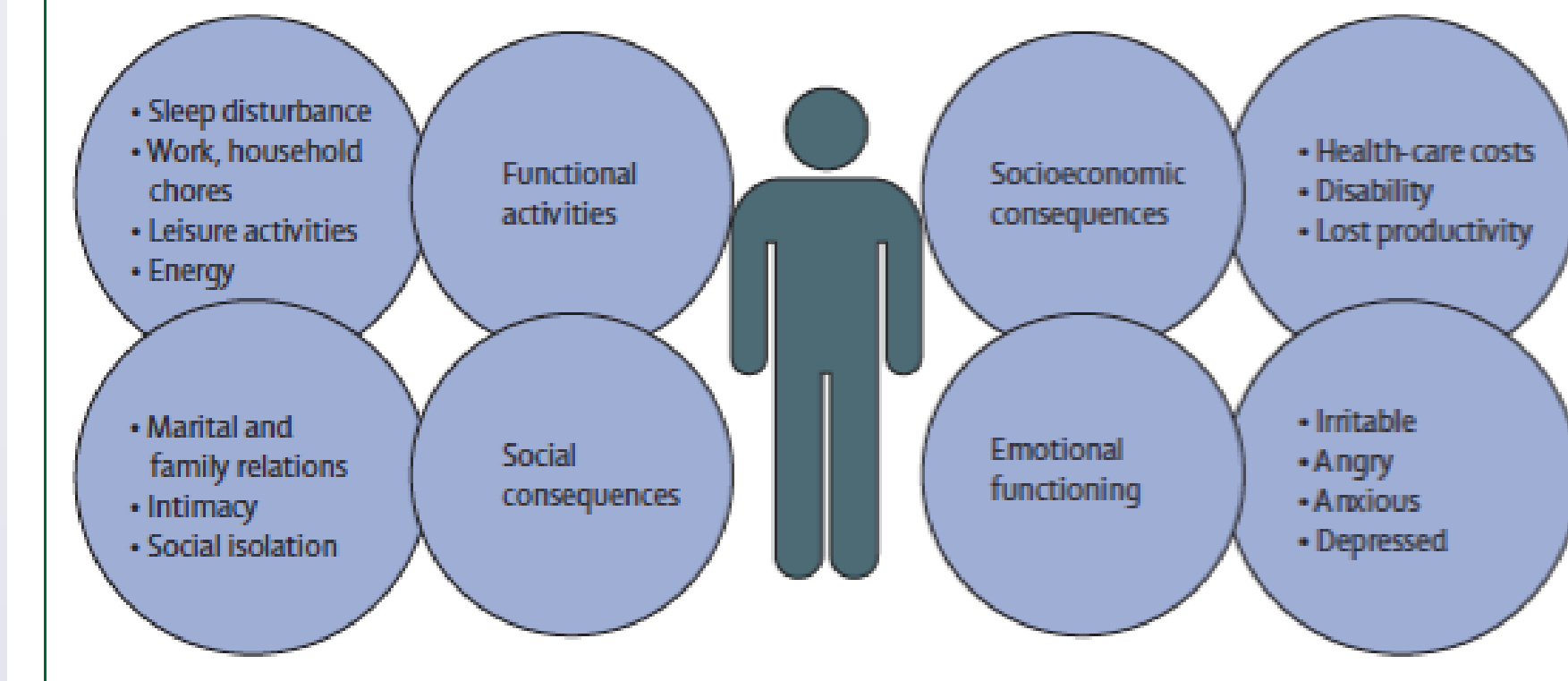
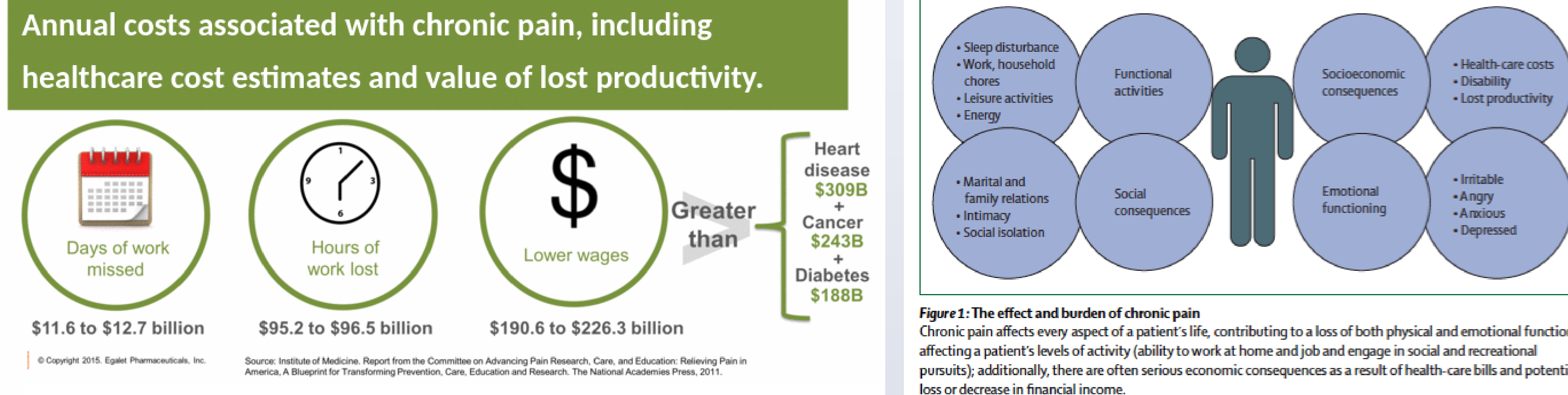
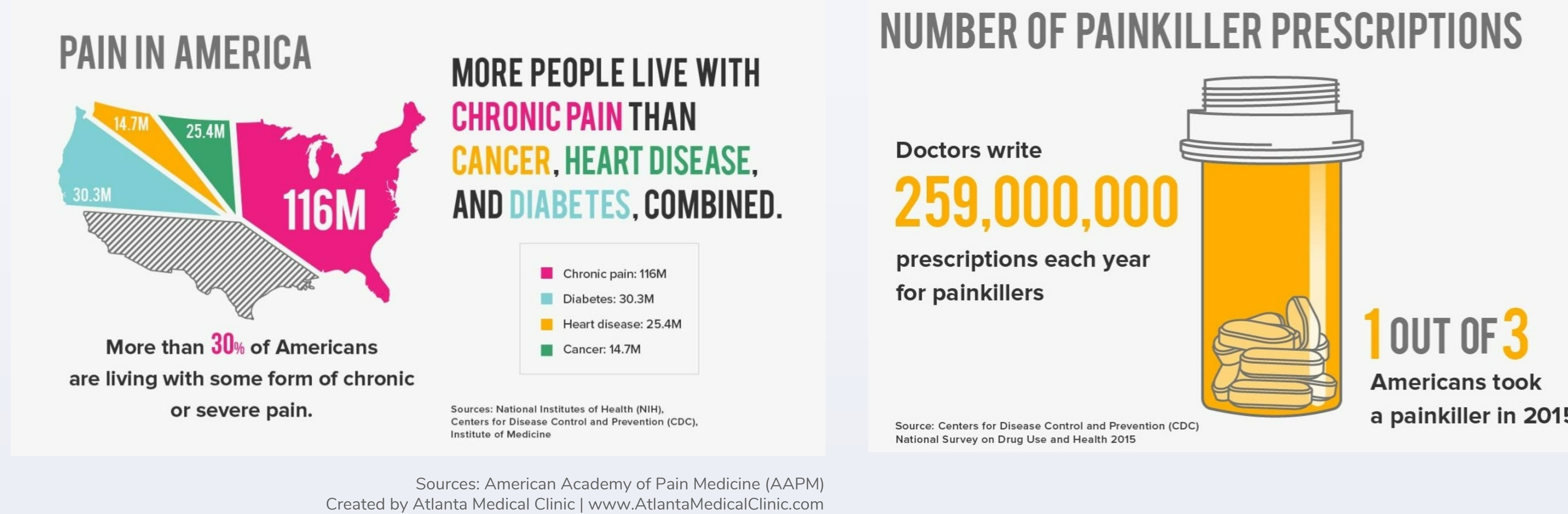
- Determining when to initiate or continue opioids for chronic pain
- Opioid selection, dosage, duration, follow-up, and discontinuation
- Assessing risk and addressing harms of opioid use.



Opioids increase the amount of dopamine in the limbic reward system. Dopamine causes intense feelings of pleasure, which drives users to seek out the drug again and again.

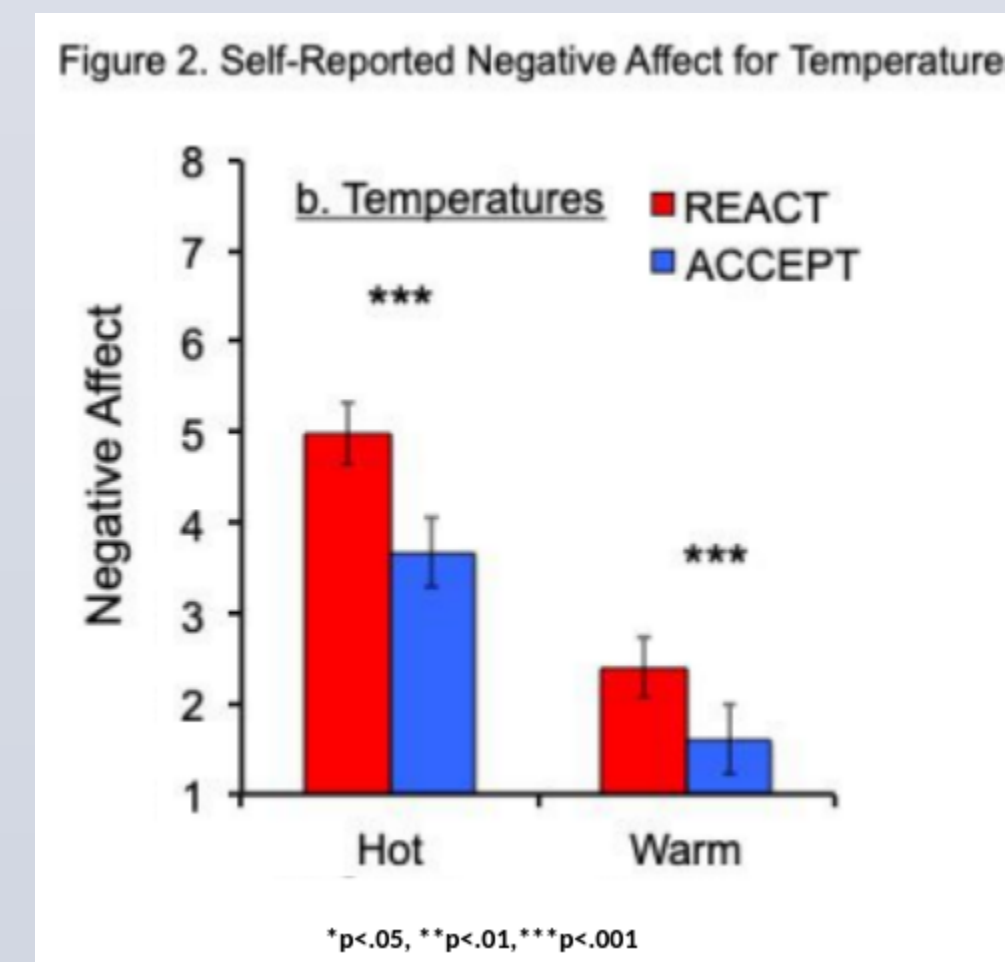
Prevalence & Burden of Pain

Despite the increase of opioids prescribed and sold for pain, the amount of pain that Americans report has not correlatively changed (CDC, 2019). The CDC acknowledges “the benefits of long-term opioid therapy for chronic non-cancer pain are not well supported by evidence” and “there is insufficient evidence for long-term benefits in low back pain, headache, and fibromyalgia” (CDC, 2019b).

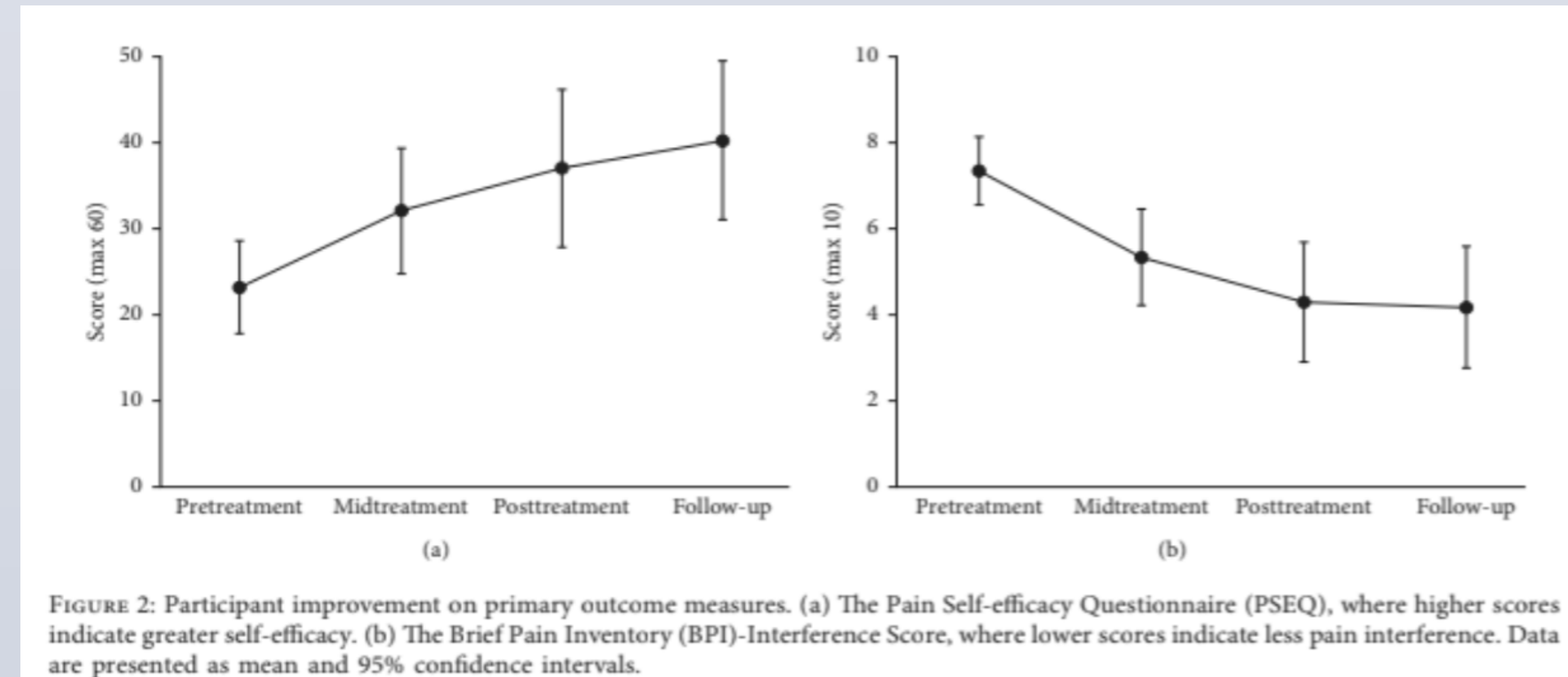


Literature Review Results: Complementary Alternative Medicine

A review of 9 pieces of literature on the topic produced compelling data supporting the efficacy of CAM:



Kober, H., et al. (2020). p. 1155



Schultz, R., et al. (2018). p. 8

Recommendations for Practice Change

Primary Care Providers (PCPs) should consider:

- Managing current problematic opioid prescribing.
- Preparing to set boundaries with patients.
- Requiring group meeting visits in pain contracts for patients on long term opioid therapy as well as an opioid discontinuation process that involves a taper, medically supervised detoxification or induction of opioid agonist treatments as indicated.
- Educating their patients about realistic expectations for chronic non-cancer pain management and therapy options.
- Incorporating behavioral and CAM therapies as a required part of chronic non-cancer pain management settings, leading to higher satisfaction for both patients and providers, as well as provide important input to policy makers.
- Increasing the employment of behavioral health specialists practicing in primary care settings to be trained in evidence-based brief interventions that address both substance use disorders and chronic non-cancer pain.
- Adopting a nationally standardized chronic non-cancer pain management referral algorithm, to increase immediate access to these therapies.
- Advocating for health insurance carrier reimbursement for CAM services.

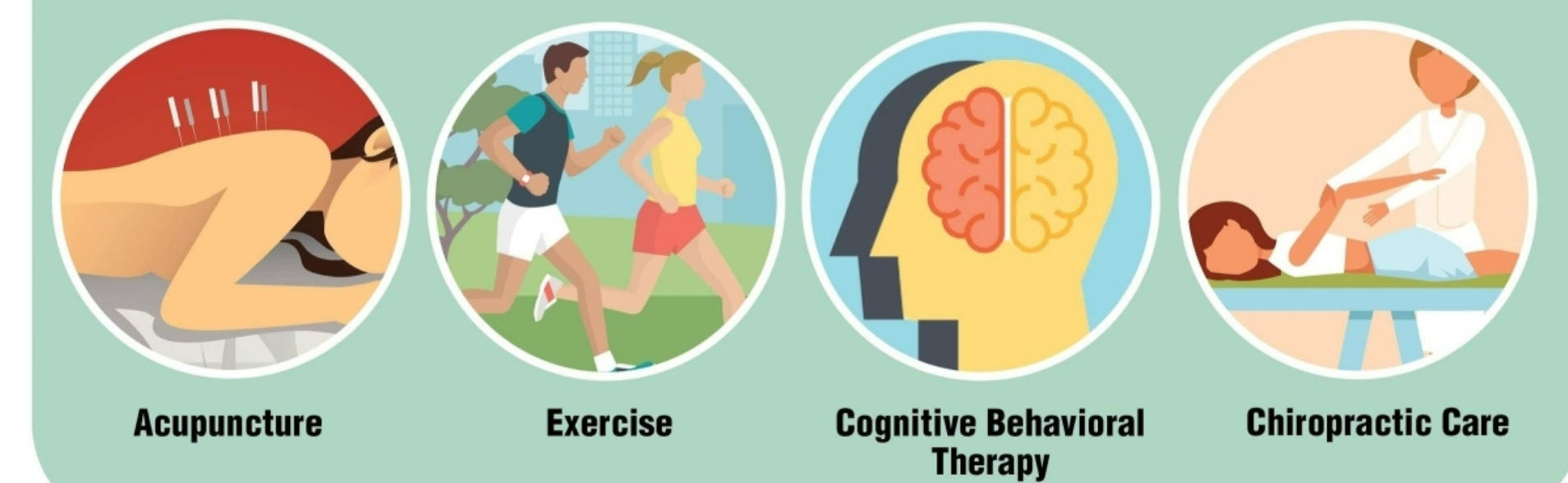
Conclusion

The purpose of this literature review was to determine the efficacy of complementary and alternative medicine (CAM) in the management of chronic non-cancer pain. This literature review has explicitly shown that CAM is indeed efficacious for a large population of people experiencing chronic non-cancer pain. Mindfulness, acceptance and other non-pharmacological methods are powerful in regulating emotion. CAM can be deployed effectively and may profoundly alter the psychological and neural consequences of negative affect and pain. CAM should be prioritized into standard practices among primary care providers.



Alternatives to Opioids for Managing Pain

Effective therapies to manage chronic pain



References

- Beth Israel Lahey Health New England Baptist Hospital. (2019). Spine Care. Retrieved from: <https://www.nebh.org/what-we-offer/spine-care/>
- Birnbaum, H. G., White, A. G., Schiller, M., Waldman, T., Cleveland, J. M., Roland, C. L. Societal costs of prescription opioid abuse, dependence, and misuse in the United States. *American Academy of Pain Medicine*. Retrieved from: <https://www.asam.org/docs/advocacy/societal-costs-of-prescription-opioid-abuse-dependence-and-misuse-in-the-united-states.pdf>
- Center for Disease Control. (2019a). CDC > Opioid Overdose > Data > Prescription Opioids > Overview. Retrieved from: <https://www.cdc.gov/drugoverdose/data/prescribing/overview.html>
- Center for Disease Control. (2019b). Checklist for prescribing opioids for chronic pain. Retrieved from: https://www.cdc.gov/drugoverdose/pdf/pdo_checklist-a.pdf
- Center for Disease Control. (2019c). CDC > Opioid Overdose > Information for Providers. Retrieved from: <https://www.cdc.gov/drugoverdose/prescribing/guideline.html>
- Clark, J., Nijs, J., Yeowell, G., and Goodwin, P. C. (2017). What are the predictors of altered central pain modulation in chronic musculoskeletal pain populations? A systematic review. *Pain Physician Journal*, 20, 487–500.
- Clark, S. D., Bauer, B. A., Vitek, S., & Cutshall, S. M. (2019). Effect of integrative medicine services on pain for hospitalized patients at an academic health center. *Explore*, 15, 61–64. <http://creativecommons.org/licenses/by-nc-nd/4.0/>
- Culgin, J. L. & Duffy, C. M. (2017). Chronic pain. In, Buttaro: Primary care: Collaborative practice (5th ed., pp. 1186–1189). St. Louis, MO: Elsevier.
- Dahlhamer, J., Lucas, J., Zelaya, C., et al. (2018). Prevalence of chronic pain and high-impact chronic pain among adults — United States, 2016. *Morbidity and Mortality Weekly Report*, 67(36), 1001–1006. DOI: 10.15585/mmwr.mm6736a2
- Florence, C. S., Zhou, C., Luo, F., & Xu, L. (2016). The economic burden of prescription opioid overdose, abuse, and dependence in the United States, 2013. *Medical Care*, 54(10), 901–906. DOI:10.1097/MLR.0000000000000625
- Johns Hopkins University. The Johns Hopkins Hospital, and Johns Hopkins Health System. (2020). Health Home > Wellness and Prevention. Retrieved from: <https://www.hopkinsmedicine.org/health/wellness-and-prevention/types-of-complementary-and-alternative-medicine>
- Kligler, B. Bair, M. J., Banerjee, R., DeBar, L., Ezeji-Okoye, S., Lisi, A., Murphy, J. L., Sandbrink, F., Cherkin, D. C. (2018). Clinical policy recommendations from the VHA state-of-the-art conference on non-pharmacological approaches to chronic musculoskeletal pain. *Journal of General Internal Medicine*, 33(Supplement 1), S16–S23. DOI: 10.1007/s11606-018-4323-z
- Kober, H., Buhle, J., Weber, J., Ochsner, K. N., Wagner, T. D. (January 27, 2020). Let it be: Mindful-acceptance modulates pain and negative emotion. *Social Cognitive and Affective Neuroscience*, 30(11), 1147–1158. <https://doi.org/10.1093/scan/nsz104>
- Lovejoy, T. I., Morasco, B. J., Demidenko, M. I., Meath, T. H. A., & Dobscha, S. K. (2018). Clinician referral for non-opioid pain care following discontinuation of long-term opioid therapy differ based on reasons for discontinuation. *Journal of General Internal Medicine*, 33(Supplement 1), S24–S30. DOI: 10.1007/s11606-018-4329-6
- Melzack, R. (1987). The Short-form McGill Pain Questionnaire. *Pain*, 30, 191–197. Retrieved from: <https://www.esahq.org/-/media/ESA/Files/ClinicalTrialNetwork/PLATA/Docs/04A%20Appendix4APLATAManuscript%20OfMGQP%20v10%2025FEB2013.sashx>
- National Institute on Drug Abuse. (2019). Home » Drugs of Abuse » Opioids » Opioid Overdose Crisis. Retrieved from: <https://www.drugabuse.gov/drugs-abuse/opioids/opioid-overdose-crisis>
- National Institute on Drug Abuse. (2018, June 8). Medications to treat opioid use disorder. Retrieved from: <https://www.drugabuse.gov/publications/research-reports/medications-to-treat-opioid-use-disorder>
- McCrobie, C., Closs, S. J., House, A., Petty, D., Ziegler, L., Glidewell, L., West, R., & Foy, R. (2015). Understanding long-term opioid prescribing for non-cancer pain in primary care: a qualitative study. *BioMed Central Family Practice*, 16(121). DOI: 10.1186/s12875-015-0335-5
- Nahin, R. L., Stussman, B. J., & Herman, P. M. (2015). Out-of-pocket expenditures on complementary health approaches associated with painful health conditions in a nationally representative adult sample. *The Journal of Pain*, 16(11), 1147–1162. DOI: 10.1016/j.jpain.2015.07.2013
- Pennely, L. S., Ritenbaugh, C., DeBar, L. L., Elder, C., & Deyo, R. A. (2016). Provider and patient perspectives on opioids and alternative treatments for managing chronic pain: a qualitative study. *BMC Family Practice*, 17(164). DOI: 10.1186/s12875-016-0566-0
- Schultz, R., Smith, J., Newby, J. M., Gardner, T., Shiner, C. T., Andrews, G., & Faux, S. G. (2018). Pilot trial of the reboot online program: an internet-delivered multidisciplinary pain management program for chronic pain. *Pain Research and Management*, 9634727, 1–11. <https://doi.org/10.1155/2018/9634727>

Contact

Lauren O'Malley-Singh, BA, BSN, RN (she/her/hers)

Google Voice: 781-815-4158

E-Portfolio

<https://drive.google.com/open?id=1sTCHaMW77HleTzIbd2shtHUGwf-swLAO>