

The Benefits of Integrative Medicine in the Management of Chronic Pain: A Systematic Review

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INTRODUCTION

Chronic pain is a debilitating condition that typically lasts longer than 6 months. It affects many individuals throughout daily life. The typical treatment for chronic pain is NSAIDs and opioids to help patients with the pain. This presents with many side effects for patients. An approach that can help patients without the use of NSAIDs and opioids is using integrative medicine. Integrative medicine combines both conventional and alternative medicine and is more geared towards being patient centered and healing orientated. Goes beyond the treatment of symptoms to address all causes of illness. These therapies include treatments such as massage therapy, osteopathic and spinal manipulation, acupuncture, and yoga. All forms of the therapies work in different ways in which patients can manage chronic pain and not depend on NSAIDs and opioids as these have several side effects.

METHODS

The Systematic Review was conducted through PubMed, EBSCO electronic databases, using keywords: “integrative medicine”, “pain”, “chronic pain”, “pain management”, and the use of Boolean operators “and”, “or”, and “not”, in order to identify relative studies that discussed the effectiveness of using alternative medicine for the treatment of chronic pain. The inclusion criteria was that the articles must be a scholarly or peer reviews journal, that the articles must be recent and within the past 5 to 7 years, and that the articles are published in the English language. The outcome measures that were included are the change in degree of pain, quality of life before and after, and any side effects.

LIMITATIONS

The systematic review did not specify a limit of a minimum number of participants that must be included within the reviewed studies. All forms of studies were allowed for the systematic review, but for a more concise review, just only randomized controlled trials should be included in the study. For future, side effects, as well as short and long term impacts of the four integrative treatments analyzed, should be included within the systematic review.

DISCUSSION

After reviewing the articles used within the systematic review, integrative medicine can aid in significantly reducing chronic pain. The most effective therapy was massage therapy as this therapy targets the areas most affected in patients with chronic pain while also being cost-efficient and accessible compared to other therapies. While all therapies showed a significant reduction in pain, the therapy that did not show as significant of a reduction in pain was osteopathic and spinal manipulation. This therapy still showed reduction in pain particularly for lower back pain.

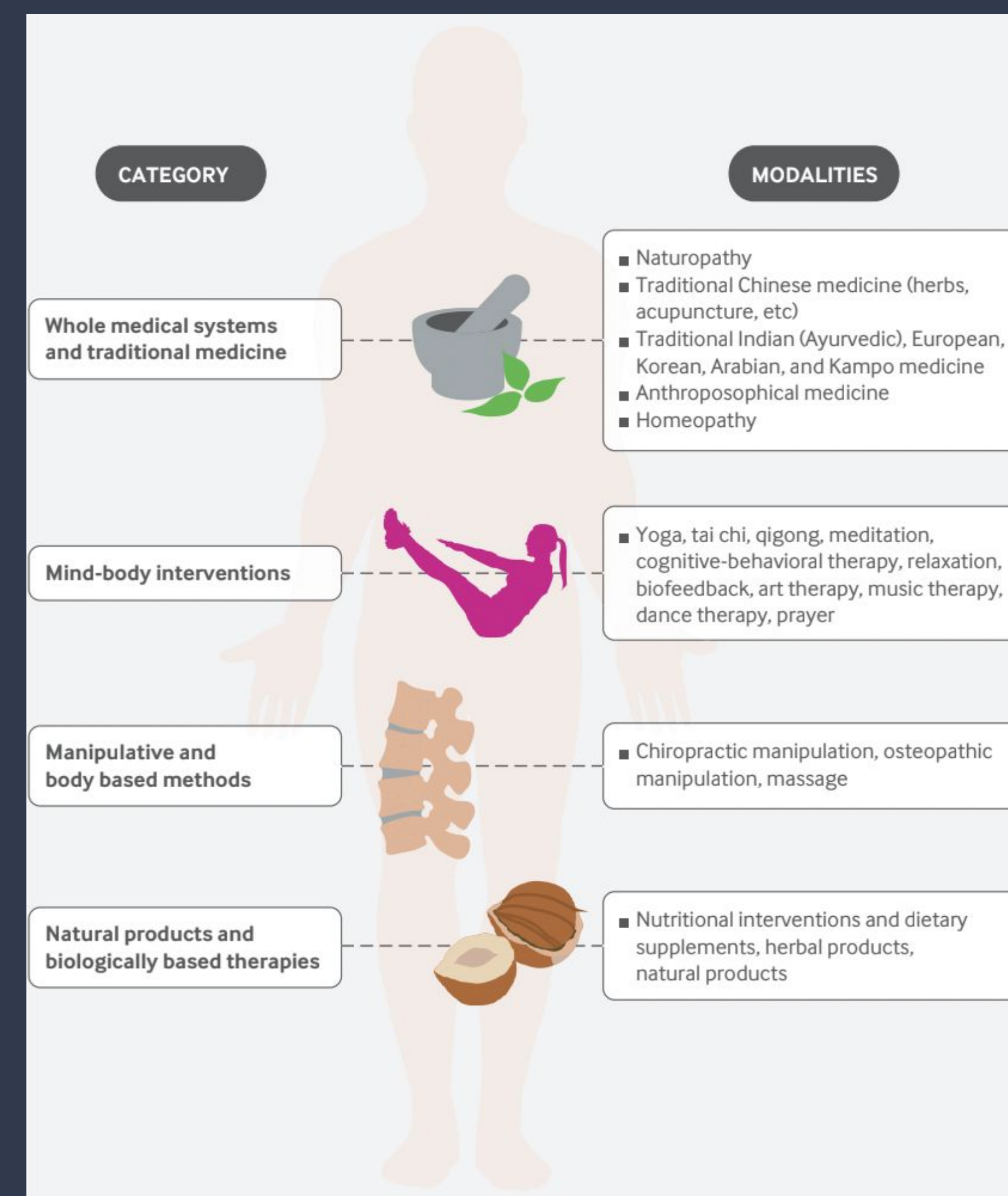


Figure 1: Categories of Integrative Medicine

RESULTS

Within all the studies included within the systemic review it was shown that massage therapy when done in optimal doses showed significant results in reduction of chronic pain for neck pain and lower back pain. Myofascial massage showed beneficial results for pain post breast cancer surgery. Osteopathic and spinal manipulation showed significant reduction for lower back pain. Another method, traditional acupuncture showed significant reduction in lower back pain as well but different forms of acupuncture such as electroacupuncture and laser acupuncture were effective for treating knee osteoarthritis. Yoga showed a reduction in the intensity of chronic pain with no adverse effects. The overall impact of all therapies showed either a reduction or significant reduction in chronic pain in patients.

CONCLUSION

Chronic pain is usually treated with opioid and NSAIDs, which carries a risk for overdose, addiction and adverse effects. Approaches using integrative medicine have shown benefits in the management of chronic pain and can be performed as an alternative to pharmaceutical use or other traditional methods of treatment. This systematic review showed that all forms of alternative medicine included in this review, massage therapy, osteopathic allowed patients to achieve and spinal manipulation, acupuncture, and yoga, allowed a reduction in pain intensity or relief without the use of opioids, NSAIDs or other traditional methods of chronic pain management.

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Type of Integrative Medicine	Year	Journal	Authors	Type of Study	Sample Size	Conclusion
Massage	2015	<i>The Spine Journal</i>	Cook, et al	Randomized clinical trial	228	Participants in the 60 minute massage intervention group showed significant reduction in chronic neck pain.
	2018	<i>International Journal of Therapeutic Massage and Bodywork: Research, Education, & Practice</i>	Massingill, et al	Pilot randomized control trial	21	Myofascial massage is effective in the management of pain in patients post breast cancer surgery. It also has benefits in mobility limitations.
	2017	<i>Primary Care: Clinics in Office Practice</i>	Hillinger, et al	Review	25	Patients mostly benefited from massage therapy intervention for chronic low back pain. There were no adverse effects associated with massage.
	2020	<i>The Journal of Alternative and Complementary Medicine</i>	Dusek, et al	Open label pilot trial	42	Pain and depression were both significantly reduced in patients with chronic pain after breast cancer treatment. Treatment also showed a decrease in stress and anxiety.
Osteopathic Spinal Manipulation	2014	<i>Journal of Pain</i>	Bialosky, et al	Randomized control trial	110	Patients went under a pain sensitivity study, where spinal manipulation, in comparison with a placebo, yielded a greater heat response, which showed a reduction in pain sensitivity.
	2014	<i>Annals of Internal Medicine</i>	Bronfort, et al	Trial with adaptive allocation	192	The study resulted in that for patients with leg pain, spinal manipulation therapy with at-home-exercise and clinical advice at twelve weeks had less of an impact than that of at-fifty-two weeks. There was also an improvement in back-related leg pain.
	2017	<i>Journal of Manipulative Therapy</i>	Krekoukias, et al	Randomized control trial	75	Patients in the spinal manipulation intervention group showed a 75% improvement in chronic lower back pain compared to the physical therapy treatment group that only showed a 25% improvement.
	2016	<i>Journal of Osteopathic Medicine</i>	Licciardone, et al	Randomized control trial	433	The study had a significant finding of an interaction of osteopathic spinal manipulation and depression. Patients without depression were more likely to recover from chronic lower back pain with osteopathic spinal manipulation, than with depression.
	2014	<i>The Journal of Pain</i>	Penza, et al	Randomized control trial	92	Spinal manipulation therapy showed equally as effective results as spinal mobilization in the localized reduction on temporal summation of heat pain.
	2017	<i>The Spine Journal</i>	Haas, et al	Randomized control trial	100	Chronic lower back pain was significantly improved with 12 session of spinal manipulation over 6 weeks. Functional disability also showed signs of improvement.
Acupuncture	2017	<i>BMC Geriatrics</i>	Goertz, et al	Randomized control trial	131	Patients in the study received three forms of treatment. Of those three, the two groups receiving the treatment with chronic manipulation showed improvements when compared to those that received medical management alone.
	2020	<i>Medicine</i>	Sung, et al	Randomized control trial	38	Acupuncture therapy and acupuncture therapy with thread embedded acupuncture are almost equal in effectiveness in the treatment of chronic low back pain. Both exhibit continued effectiveness even after conclusion of therapy.
Yoga	2017	<i>Primary Care: Clinics in Office Practice</i>	Hillinger, et al	Systematic review	29	Acupuncture the best holistic approach for treatment of chronic pain and improves disability and depression as well. It is well tolerated, safe and has few adverse effects.
	2020	<i>Medicine</i>	Wu, et al	Randomized Controlled trial	50	Laser acupuncture and electroacupuncture were found to have an anti-inflammatory and neural modulation effects, that lead to decreased knee pain in patients with knee osteoarthritis.
	2019	<i>Annals of Internal Medicine</i>	Saper, et al	Randomized control trial	320	Yoga demonstrated noninferiority to physical therapy in the reduction of chronic low back pain. In addition, improvements were maintained after 1 year.
	2019	<i>Medicine</i>	Li, et al	Systematic review, meta analysis	10	Yoga is effective in the treatment of chronic nonspecific neck pain, reducing the intensity of pain, along with other secondary outcomes such as range of motion and quality of life.

Table 1: Summary of All Therapy Methods and the Results Obtained