

The Health Workforce Delivering Evidence-Based Non-Pharmacological Pain Management

Samantha W. Pollack, MHS, Susan M. Skillman, MS, Bianca K. Frogner, PhD

BACKGROUND

Chronic pain is widespread among U.S. adults, and overreliance on pharmacological approaches to managing this pain has contributed to the nation's opioid addiction crisis. There is growing recognition of the importance of directing patients towards non-pharmacological approaches to manage pain. This study describes the health-related occupations that are able to deliver evidence-based non-pharmacologic pain management, and how education-, policy- and practice-related factors serve as barriers or facilitators to further leverage this workforce to effectively help manage chronic pain.

METHODS

Building on recent systematic literature reviews of evidence-based non-pharmaceutical interventions for pain management from the Mayo Clinic¹ and the U.S. Agency for Healthcare Research and Quality,² we conducted a literature and web review to detail the variety of health occupations able to provide these interventions. Chronic pain types addressed include those most common in the U.S. population: low back pain, chronic neck pain, knee osteoarthritis, fibromyalgia, and tension headaches. This study identified the health care occupations able to deliver the interventions that were deemed effective by these reviews. We also spoke with key stakeholders for their input on the policies, education/training, and perceived barriers and facilitators affecting increased access to non-pharmacological pain management.

KEY FINDINGS

Key findings include:

- Chronic pain may be effectively managed using one or more evidence-based non-pharmacologic approaches. These approaches are within the scope of practice of multiple provider types who may work individually or in multidisciplinary teams. Non-pharmacologic pain management approaches may be effectively delivered independently or in combinations, and by specific occupations as well as by multidisciplinary teams.
- Health care occupations, in addition to the traditional medical providers (physicians, nurse practitioners and physician assistants) able to deliver evidence-based pharmacologic pain management include physical therapists and assistants, occupational therapists and assistants, massage therapists, athletic trainers, chiropractors, psychotherapists (licensed psychologists, licensed therapists/counselors and clinical social workers), as well as practitioners (either as stand-alone occupations or health care providers with additional training) of acupuncture, yoga, tai chi, qigong, and Alexander Technique. Education and credentialing requirements for this workforce varies widely, depending on the occupation, specialty, and therapy type.
- Several factors influence access to the workforce able to deliver evidence-based non-pharmacologic pain treatment, including generally low levels of knowledge of these resources among health care providers and patients, inconsistent health insurance coverage, and variability in states' professionals' licensing requirements and scope of practice of the involved occupations.
- Too few guidelines on how to appropriately treat patients with chronic pain coupled with a lack of knowledge by many clinicians of appropriate chronic pain interventions have likely contributed to an over-reliance on prescription drugs as pain treatment. Variability in access to evidence-based treatment increases the risk for overuse of pharmaceutical treatment of chronic pain.

CONCLUSIONS AND POLICY IMPLICATIONS

As society works to reduce opioid addiction, efforts are increasing to improve access to the workforce providing non-pharmacologic pain management. Ongoing support to expand and strengthen effectiveness research and disseminate findings is needed to support sound policymaking. Better education about the variety and availability of these practices is needed, as well as ongoing support for effectiveness research. Information about which occupations can provide evidence-based non-pharmacological pain treatment, where they are located, and which populations they are able to serve, may improve access to these services as well as identify where gaps in the pain treatment workforce occur across the U.S. and illuminate where there is greater risk for overuse of pharmaceutical treatment of chronic pain. Reforms to insurance coverage and related reimbursement should be considered as a way to improve access to these services across the U.S.

Occupations that may deliver evidence-based non-pharmacological pain interventions based on entry-level training or additional certification

Intervention	Athletic Trainer (AT)	Psychotherapist ^a	Physical Therapist (PT), Physical Therapy Assistant (PTA)	Massage Therapist	Occupational Therapist (OT), Occupational Therapy Assistant (OTA)	Chiropractor	Licensed Acupuncturist (LAc)	Physician, NP and PA ^b	Certified Practitioner ^c
Complementary & Alternative									
Acupuncture			X*			X*	X	X*	
Yoga					X				X
Tai Chi									X
Qigong									X
Alexander Technique								X	X
Behavioral Health Approaches									
Cognitive Behavioral Therapy		X			X			X	
Relaxation Approaches ^d	X	X	X		X			X	
MBSR ^e		X							X
Restorative Therapies									
Osteopathic Manipulation								X**	
Spinal Manipulation			X			X		X**	
Massage Therapy	X		X	X	X	X			
Myofascial release massage				X	X*	X		X**	
Ultrasound	X		X		X*	X*			
Low-level Laser Therapy	X						X	X	
Exercise									
General	X		X		X	X		X	
Multidisciplinary Rehabilitation									
Treatment with combined interventions and professions	X	X	X	X	X	X	X	X	X

^a Psychotherapists include: psychologists, licensed clinical social workers, licensed therapists, and counselors

^b Physicians include: medical doctors and/or doctors of osteopathy; NP=Nurse Practitioner; PA=Physician Assistant

^c Practices delivered by multiple occupations, including certified practitioners of yoga, tai chi, qigong, and Alexander Technique

^d Includes guided imagery, biofeedback, meditation, self-hypnosis, deep-breathing exercises

^e MBSR=Mindfulness-based stress reduction

* May perform with additional education, training, or certification

** Part of the basic medical training of osteopathic clinicians

REFERENCES

- Nahin RL, Boineau R, Khalsa PS, Stussman BJ, Weber WJ. Evidence-based evaluation of complementary health approaches for pain management in the United States. *Mayo Clin Proc.* 2016;91(9):1292-1306. doi: 10.1016/j.mayocp.2016.06.007.
- Skelly AC, Chou R, Dettori JR, et al. Noninvasive Nonpharmacological Treatment for Chronic Pain: A Systematic Review. Comparative Effectiveness Review No. 209. (Prepared by the Pacific Northwest Evidence-based Practice Center under Contract No. 290-2015-00009-I.) AHRQ Publication No 18-EHC013-EF. Rockville, MD: Agency for Healthcare Research and Quality; June 2018. doi: 10.23970/AHRQEPCCER209.

FUNDING This publication was supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) as part of an award totaling \$601,188 with zero percentage financed with non-governmental sources. The contents are those of the author(s) and do not necessarily represent the official views of, nor an endorsement, by HRSA, HHS or the U.S. Government. For more information, please visit HRSA.gov. <https://www.hrsa.gov/grants/manage/acknowledge-hrsa-funding>

FULL REPORT Pollack SW, Skillman SM, Frogner BK. *The Health Workforce Delivering Evidence-Based Non-Pharmacological Pain Management.* Center for Health Workforce Studies, University of Washington, Feb 2020. <http://depts.washington.edu/fammed/chws/wp-content/uploads/sites/5/2020/02/Non-Pharmacological-Pain-Management-FR-2020.pdf>

CONTACT INFORMATION Samantha W. Pollack, MHS, University of Washington, Center for Health Workforce Studies sampo@uw.edu | 206 616-6760 | <http://depts.washington.edu/uwchws/>



Facebook: <https://www.facebook.com/uwchws>

Twitter: @uwchws

Website: <http://depts.washington.edu/uwchws/>