

Primary Care Clinician and Patient Knowledge, Interest, and Use of Integrative Treatment Options for Chronic Low Back Pain Management

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Background: Access to effective nonpharmacologic treatments for chronic pain, including integrative therapy approaches, is a priority for the US Department of Veterans Affairs (VA) for improving pain care and promoting patient-centered care as part of the VA Whole Health System care delivery model. This study sought to assess primary care practitioner (PCP) and patient knowledge, interest, and use of integrative therapies to identify strategies to promote broader utilization.

Methods: PCPs affiliated with the VA Ann Arbor Healthcare System and a random sample of patients with low back pain diagnoses were surveyed. These cross-sectional surveys assessed knowledge, use, interest, and perceived barriers.

Results: Twenty-eight PCPs and 83 patients completed the survey, yielding response rates of 36% and 42%, respectively. Twenty-three PCPs (82%) reported recommending cognitive-behavioral therapy, 22 (79%) recommended acupuncture, and

21 (75%) chiropractic modalities for chronic pain. Fifty-nine patients (71%) reported using chiropractic and 42 (51%) used acupuncture therapies. Acupuncture, chiropractic and massage were identified as therapies that most PCPs and patients would like to have available. Twenty-six PCPs (93%) identified access to services, 22 (79%) cited time constraints, 17 (61%) cited lack of familiarity, and 18 (64%) cited lack of evidence as barriers to offering integrative therapies. Patient-identified barriers to using therapies included not knowing what services were available at their facility, not being familiar with a specific therapy, and lack of clarity about the benefits of a specific therapy.

Conclusions: VA PCPs and patients with chronic back pain have some experience with and are interested in using specific integrative therapies. Barriers such as service accessibility and knowledge gaps must be addressed to increase the uptake of integrative modalities for managing chronic pain.

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More than 50 million US adults report experiencing chronic pain, with nearly 7% experiencing high-impact chronic pain.¹⁻³ Chronic pain negatively affects daily function, results in lost productivity, is a leading cause of disability, and is more prevalent among veterans compared with the general population.^{1,2,4-6} Estimates from 2021 suggest the prevalence of chronic pain among veterans exceeds 30%; > 11% experienced high-impact chronic pain.¹

Primary care practitioners (PCPs) have a prominent role in chronic pain management. Pharmacologic options for treating pain, once a mainstay of therapy, present several challenges for patients and PCPs, including drug-drug interactions and adverse effects.⁷ The US opioid epidemic and shift to a biopsychosocial model of chronic pain care have increased emphasis on nonpharmacologic treatment options.^{8,9} These include integrative modalities, which incorporate conventional approaches with an array of complementary health approaches.¹⁰⁻¹²

Integrative therapy is a prominent feature in whole person care, which may be best exemplified by the US Department of Veterans Affairs (VA) Whole Health System of care.¹³⁻¹⁴ Whole health empowers

an individual to take charge of their health and well-being so they can “live their life to the fullest.”¹⁴ As implemented in the Veterans Health Administration (VHA), whole health includes the use of evidence-based complementary and integrative therapies, encompassing a multimodal pain management approach. Expanding the use of these therapies requires a better understanding of PCP and patient knowledge, interest, and use of integrative modalities for chronic pain.

METHODS

Using a cross-sectional survey design, PCPs and patients with chronic back pain affiliated with the VA Ann Arbor Healthcare System were invited to participate in separate but similar surveys to assess knowledge, interest, and use of nonpharmacologic integrative modalities for the treatment of chronic pain. In May, June, and July 2023, 78 PCPs received 3 email invitations to participate in an electronic (Qualtrics) survey. Patients were identified based on having an *International Statistical Classification of Diseases, Tenth Revision* code for low back pain (M54.5, M54.40, 41, 42, M54.89) on ≥ 2 outpatient encounters within 18 months (April 1, 2021, to

March 31, 2023). A random sample of 200 patients was selected and sent a packet in September 2023 that included an introductory letter and a paper survey, along with a website link and QR code to complete the survey electronically if preferred. The introductory letter stated that participation is voluntary, had no impact on the health care currently received at the VA, and names are not attached to the survey, allowing them to remain anonymous. The packet also included a \$10 gift card to encourage survey completion.

Both survey instruments are available upon request, were developed by the study team, and included a mix of yes/no questions, “select all that apply” items, Likert scale response items, and open-ended questions. For one question about which modalities they would like available, the respondent was instructed to select up to 5 modalities. The instruments were extensively pretested by members of the study team, which included 2 PCPs and a non-veteran with chronic back pain.

The list of integrative modalities included in the survey was derived from the tier 1 and tier 2 complementary and integrative health modalities identified in a VHA Directive on complementary and integrative health.^{15,16} Tier 1 approaches are considered to have sufficient evidence and must be made available to veterans either within a VA medical facility or in the community. Tier 2 approaches are generally considered safe and may be made available but do not have sufficient evidence to mandate their provision. For participant ease, the integrative modalities were divided into 5 subgroups: manual therapies, energy/bio-field therapies, mental health therapies, nutrition counseling, and movement therapies. The clinician survey assessed clinicians’ training and interest, clinical and personal use, and perceived barriers to providing integrative modalities for chronic pain. Professional and personal demographic data were also collected. Similarly, the patient survey assessed use of integrative therapies, perceptions of and interest in integrative modalities, and potential barriers to use. Demographic and health-related information was also collected.

Data analysis included descriptive

TABLE 1. Study Demographics and Characteristics

Criteria	PCPs (n = 28)	Patients (n = 83)
Race, No. (%)		
Asian	8 (29)	0 (0)
Black	0 (0)	5 (6)
White	15 (54)	66 (80)
Prefer not to say, other, or missing	5 (18)	12 (15)
Ethnicity not Hispanic, No. (%)	26 (93)	66 (80)
Sex, No. (%)		
Male	10 (36)	69 (83)
Female	15 (54)	10 (12)
Prefer not to say or missing	3 (11)	4 (5)
Age, median (IQR), y	48 (9.5)	66 (20.0)
Professional group, No. (%)		
MD/DO	25 (89)	NA
PA/NP	3 (11)	NA
Primary practice site, No. (%)		
Main VA medical center	19 (68)	NA
Community-based outpatient clinic	9 (32)	NA
Time in practice, median (IQR), y		
Total	20 (12.5)	NA
At VA	13 (11)	NA
Clinical h/wk, median (IQR)	22.4 (22)	NA
No prior integrative modality training, No. (%)	13 (46)	NA
Used integrative modalities for self, No. (%)	13 (46)	NA
Self-reported, No. (%)		
Overall excellent, very good, or good health	NA	47 (57)
Excellent, very good, or good mental health	NA	53 (64)
Back pain		
> 5 y	NA	59 (71)
At least weekly flare-ups during past year	NA	67 (81)
Very or somewhat interested in integrative therapies for back pain, No. (%)	NA	60 (72)
Integrative therapy information source, No. (%)		
Do not receive information	NA	40 (48)
PCP	NA	34 (41)
Other clinicians	NA	10 (12)
Internet or social media	NA	10 (12)
Family or friends	NA	7 (8)
Television	NA	3 (4)

Abbreviations: DO, doctor of osteopathy; MD, medical doctor; NA, not applicable; NP, nurse practitioner; PA, physician assistant; PCP, primary care practitioner; VA, US Department of Veterans Affairs.

statistics (eg, frequency counts, means, medians) and visual graphic displays. Separate analyses were conducted for clinicians and patients in addition to a comparative analysis of the use and potential interest in integrative modalities. Analysis were conducted using R software. This study was deemed nonresearch quality improvement by the VA Ann Arbor Healthcare System facility research oversight board and institutional review board approval was not solicited.

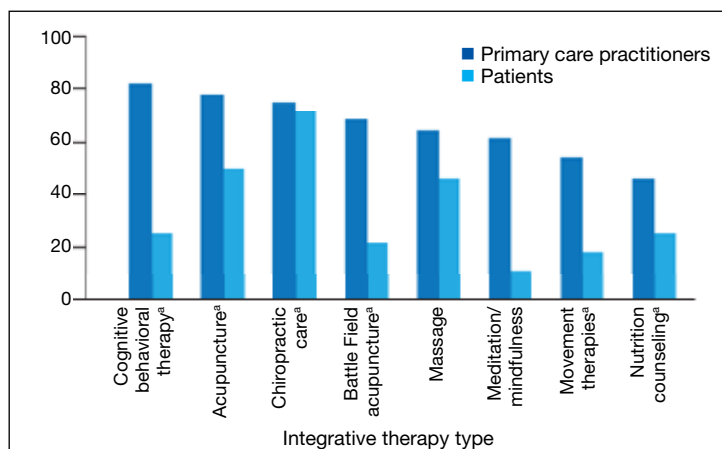


FIGURE 1. Comparison of Integrative Therapies Primary Care Clinicians Recommend and Patients Have Used

^aAvailable at time of survey.

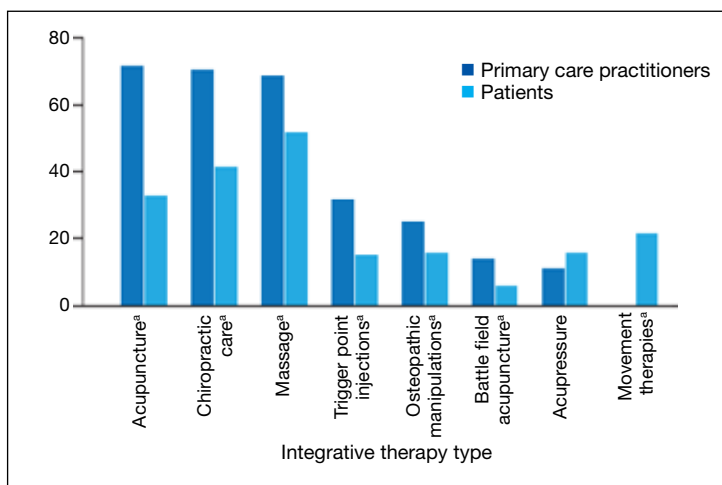


FIGURE 2. Integrative Therapies Primary Care Practitioners and Patients Would Like Available

^aAvailable at time of survey.

RESULTS

Twenty-eight clinicians completed the survey, yielding a participation rate of 36%. Participating clinicians had a median (IQR) age of 48 years (9.5), 15 self-identified as White (54%), 8 as Asian (29%), 15 as female (54%), 26 as non-Hispanic (93%), and 25 were medical doctors or doctors of osteopathy (89%). Nineteen (68%) worked at the main hospital outpatient clinic, and 9 practiced at community-based outpatient clinics (CBOCs). Thirteen respondents (46%) reported having no formal education or training in integrative approaches. Among those with prior training, 8 clinicians had nutrition counseling (29%) and 7 had psychological therapy training (25%).

Thirteen respondents (46%) also reported using integrative modalities for personal health needs: 8 used psychological therapies, 8 used movement therapies, 10 used integrative modalities for stress management or relaxation, and 8 used them for physical symptoms (Table 1).

Overall, 85 of 200 patients (43%) responded to the study survey. Two patients indicated they did not have chronic back pain and were excluded. Patients had a median (IQR) age of 66 (20) years, with 66 self-identifying as White (80%), 69 as male (83%), and 66 as non-Hispanic (80%). Forty-four patients (53%) received care at CBOCs. Forty-seven patients reported excellent, very good, or good overall health (57%), while 53 reported excellent, very good, or good mental health (64%). Fifty-nine patients reported back pain duration > 5 years (71%), and 67 (81%) indicated experiencing back pain flare-ups at least once per week over the previous 12 months. Sixty patients (72%) indicated they were somewhat or very interested in using integrative therapies as a back pain treatment; however, 40 patients (48%) indicated they had not received information about these therapies. Among those who indicated they had received information, the most frequently reported source was their PCP (41%). Most patients (72%) also reported feeling somewhat to very comfortable discussing integrative medicine therapies with their PCP.

Integrative Therapy Recommendations and Use

PCPs reported recommending multiple integrative modalities: 23 (82%) recommended cognitive-behavioral therapy, 22 (79%) recommended acupuncture, 21 (75%) recommended chiropractic, 19 (68%) recommended battlefield acupuncture, recommended massage 18 (64%), 17 (61%) recommended meditation or mindfulness, and 15 (54%) recommended movement therapies such as yoga or tai chi/qigong (Figure 1). The only therapies used by at least half of the patients were chiropractic used by 59 patients (71%) and acupuncture by 42 patients (51%). Thirty-eight patients (46%) reported massage use and 21 patients (25%) used cognitive-behavioral therapy (Table 2).

Integrative Therapies Desired

A majority of PCPs identified acupuncture (n = 20, 71%), chiropractic (n = 19, 68%), and massage (n = 19, 68%) as therapies they would most like to have available for patients with chronic pain (Figure 2). Similarly, patients identified massage (n = 42, 51%), chiropractic (n = 34, 41%), and acupuncture (n = 27, 33%) as most desired. Seventeen patients (21%) expressed interest in movement therapies.

Barriers to Integrative Therapies Use

When asked about barriers to use, 26 PCPs (93%) identified access to services as a somewhat or extremely likely barrier, and 22 identified time constraints (79%) (Table 3). However, 17 PCPs (61%) noted lack of familiarity, and 18 (64%) noted a lack of scientific evidence as barriers to recommending integrative modalities. Among patients, 33 (40%) indicated not knowing what services were available at their facility as a barrier, 32 (39%) were not familiar with specific therapies, and 21 (25%) indicated a lack of clarity about the benefits of a specific therapy. Only 14 patients (17%) indicated that there were no obstacles to use.

DISCUSSION

Use of integrative therapies, including complementary treatments, is an increasingly important part of chronic pain management. This survey study suggests VA PCPs are willing to recommend integrative therapies and patients with chronic back pain both desire and use several therapies. Moreover, both groups expressed interest in greater availability of similar therapies. The results also highlight key barriers, such as knowledge gaps, that should be addressed to increase the uptake of integrative modalities for managing chronic pain.

An increasing number of US adults are using complementary health approaches, an important component of integrative therapy.¹² This trend includes an increase in use for pain management, from 42.3% in 2002 to 49.2% in 2022; chiropractic care, acupuncture, and massage were most frequently used.¹² Similarly, chiropractic, acupuncture and massage were most often used by this sample of veterans with chronic back pain and were identified

TABLE 2. Therapies Recommended, Used, and Would Like Available

Therapies	PCP (n = 28)		Patient (n = 83)	
	Recommend	Would like ^a	Used	Would Like ^a
Manual therapies				
Chiropractic care ^b	21 (75)	19 (68)	59 (71)	34 (41)
Massage	18 (64)	19 (68)	38 (46)	42 (51)
Osteopathic manipulation ^b	6 (21)	7 (25)	9 (11)	13 (16)
Trigger point injections	7 (25)	9 (32)	18 (22)	12 (15)
Energy or biofield				
Acupuncture ^b	22 (79)	20 (71)	42 (51)	27 (33)
Battlefield acupuncture ^b	19 (68)	4 (14)	17 (21)	5 (6)
Acupressure	7 (25)	3 (11)	11 (13)	13 (16)
Reiki/healing touch ^b	4 (14)	0 (0)	6 (7)	7 (8)
Mental health				
Cognitive-behavioral therapy ^b	23 (82)		21 (25)	6 (7)
Meditation/mindfulness	17 (61)		9 (11)	2 (2)
Guided imagery	5 (18)		9 (11)	4 (5)
Clinical hypnotherapy ^b	3 (11)		1 (1)	3 (4)
Biofeedback	6 (21)		8 (10)	3 (4)
Nutrition counseling ^b	13 (46)		21 (25)	5 (6)
Yoga ^b , tai chi/qigong ^b , Alexander technique	15 (54)		15 (18)	17 (21)

Abbreviation: PCP, primary care practitioner.

^aCould select ≤ 5.

^bAvailable at the time of the survey.

by the highest percentages of PCPs and patients as the therapies they would most like available.

There were areas where the opinions of patients and clinicians differed. As has been seen previously reported, clinicians largely recommended cognitive-behavioral therapy while patients showed less interest.¹⁷ Additionally, while patients expressed interest in the availability of movement therapies, such as yoga, PCPs expressed more interest in other strategies, such as trigger point injections. These differences may reflect true preference or a tendency for clinicians and patients to select therapies with which they are more familiar. Additional research is needed to better understand the acceptability and potential use of integrative health treatments across a broad array of therapeutic options.

Despite VHA policy requiring facilities to provide certain complementary and integrative health modalities, almost all PCPs identified access to services as a major obstacle.¹⁵ Based on evidence and a rigorous vetting process, services currently required on-site, via telehealth, or through community partners include acupuncture and battlefield acupuncture

TABLE 3. Barriers to Use of Integrative Therapies^{a,b}

Barrier	Results, No. (%)
Primary care practitioner	
Lack of familiarity with specific modality	17 (61)
Lack of evidence to recommend	18 (64)
Time constraints	22 (79)
Access to services	26 (93)
Safety/efficacy concerns	9 (32)
Patients	
Don't know if services are available at facility	33 (40)
Not familiar with specific therapy	32 (39)
Benefits of specific therapy not clear	21 (25)
Services not available at my facility	14 (17)
Cost	14 (17)
No obstacles	14 (17)

^aPerceived as somewhat or extremely likely to affect ability to offer integrative services to patients with chronic pain.

^bMay select > 1 option.

(battlefield auricular acupuncture), biofeedback, clinical hypnosis, guided imagery, medical massage therapy, medication, tai chi/qi-gong, and yoga. Optional approaches, which may be made available to veterans, include chiropractic and healing touch. Outside the VHA, some states have introduced or enacted legislation mandating insurance coverage of nonpharmacological pain treatments.¹⁸ However, these requirements and mandates do not help address challenges such as the availability of trained/qualified practitioners.^{19,20} Ensuring access to complementary and integrative health treatments requires a more concerted effort to ensure that supply meets demand. It is also important to acknowledge the budgetary and physical space constraints that further limit access to services. Although expansion and integration of integrative medicine services remain a priority within the VA Whole Health program, implementation is contingent on available financial and infrastructure resources.

Time was also identified by PCPs as a barrier to recommending integrative therapies to patients. Developing and implementing time-efficient communication strategies for patient education such as concise talking points and informational handouts could help address this barrier. Furthermore, leveraging existing programs and engaging the entire health care team in patient education and referral could help increase integrative and complementary therapy uptake and use.

Although access and time were identified as major barriers, these findings also suggest that PCP and patient knowledge are another target area for enhancing the use of complementary and integrative therapies. Like prior research, most clinicians identified a lack of familiarity with certain services and a lack of scientific evidence as extremely or somewhat likely to affect their ability to offer integrative services to patients with chronic pain.²¹ Likewise, about 40% of patients identified being unfamiliar with a specific therapy as one of the major obstacles to receiving integrative therapies, with a similar number identifying PCPs as a source of information. The lack of familiarity may be due in part to the evolving nomenclature, with terms such as alternative, complementary, and integrative used to describe approaches outside what is often considered conventional medicine.¹⁰ On the other hand, there has also been considerable expansion in the number of therapies within this domain, along with an expanding evidence base. This suggests a need for targeted educational strategies for clinicians and patients, which can be rapidly deployed and continuously adapted as new therapies and evidence emerge.

Limitations

There are some inherent limitations with a survey-based approach, including sampling, non-response, and social desirability biases. In addition, this study only included PCPs and patients affiliated with a single VA medical center. Steps to mitigate these limitations included maintaining survey anonymity and reporting information about respondent characteristics to enhance transparency about the representativeness of the study findings.

CONCLUSIONS

Expanding the use of nonpharmacological pain treatments, including integrative modalities, is essential for safe and effective chronic pain management and reducing opioid use. Our findings show that VA PCPs and patients with chronic back pain are interested in and have some experience with certain integrative therapies. However, even within the context of a health care system that supports the use of integrative therapies for chronic pain as part of

whole person care, increasing uptake will require addressing access and time-related constraints as well as ongoing clinician and patient education.

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Disclaimer

The opinions expressed herein are those of the authors and do not necessarily reflect those of *Federal Practitioner*, Frontline Medical Communications Inc., the US Government, or any of its agencies.

Ethics and consent

This study was deemed nonresearch quality improvement by the VA Ann Arbor Healthcare System research oversight board.

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