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Complementary and Alternative Medicine Services at Pain Treatment Clinics: A National Survey of Pain Medicine Specialists in the United States

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Introduction

Use of complementary and alternative medicine (CAM) for pain has grown rapidly. Data suggest improvements in pain and reduction in opioid use with mind–body therapies,[1] and beneficial effects in addressing pain-associated problems including anxiety, depression, fatigue, and insomnia.[2] CAM integration in pain clinics was reported in the military health care system.[3] However, little is known about its availability in nonmilitary settings. We conducted a national survey of pain medicine specialists to determine how CAM services are incorporated into management choices.

Methods

After IRB approval, we surveyed 2727 pain medicine specialists, members of the American Society of Anesthesiologists (ASA), regarding the availability and use of CAM for acute or chronic pain. The survey was adapted from previously published work by Herman.[3] Face validity was evaluated by two independent experts in the field. Thirteen CAM modalities were assessed: acupuncture, aromatherapy/essential oils, chiropractic, cryotherapy, dietary/nutritional guidance, energy healing (e.g., Reike, therapeutic touch), massage, functional medicine, mindfulness, naturopathic, Rolfing, Tai Chi, and yoga. We asked about the rationale supporting CAM decisions and perceived barriers for offering the services, the selection of CAM providers, and clinic settings. In addition, the survey addressed selected pain conditions: back and neck pain, headache, extremity pain, pelvic pain, and fibromyalgia.

We distributed the survey anonymously and confidentially using QualtricsTM and applied standard survey methodology to maximize participant response. Data analyses were descriptive and presented as frequency distributions.

Results

In total, 223 respondents (8.2%) completed the survey, consistent with the average 8% response of ASA membership surveys. A total of 219 (98%) indicated their primary training was in anesthesiology and pain medicine. The majority (116; 52%) had practiced medicine for ≥11 years, 152 (68%) were male, 59 (27%) were female, and 12 (5%) were undisclosed. Most participants were employed in community-based hospitals/clinics (134; 60%) or in academic centers (59; 27%), and indicated that their institutions had integrative medicine (68; 31%), chronic pain rehabilitation (67; 30%), or functional medicine (38; 17%) programs. The four modalities most frequently available were mindfulness, dietary/nutritional guidance, acupuncture, and yoga (Table 1). CAM modalities were most often offered in outside venues. Within clinics, the three modalities most frequently offered were dietary/nutritional guidance, mindfulness, and acupuncture. The use of CAM modalities for the five selected pain conditions was low, with fibromyalgia being most commonly referred for CAM modalities. Rationale for using CAM modalities included ''scientific evidence'' (116; 70%), ''personal experience'' (94; 57%), ''anecdotal evidence'' (69; 42%), or ''other'' rationale (6; 3.6%), for example, placebo effect. CAM providers were

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Table 1. Distribution of Complementary and Alternative Medicine Modalities Use for Acute or Chronic Pain Management

Modality, n *(%)*	*Offer in your clinic*	*Refer to outside clinic*	*Value but currently do not refer patients*	*Do not value as a treatment modality*	*Service not available*
Acute pain					
Acupuncture	35 (20)	86 (48)	20 (11)	14 (8)	40 (22)
Aromatherapy/essential oils	10 (6)	16 (9)	31 (17)	61 (34)	70 (39)
Chiropractic	8 (4)	97 (54)	22 (12)	29 (16)	34 (19)
Cryotherapy	17 (9)	29 (16)	26 (15)	42 (23)	73 (41)
Dietary/nutritional guidance	45 (25)	89 (50)	25 (14)	5 (3)	26 (15)
Energy healing	6 (3)	34 (19)	53 (30)	59 (33)	53 (30)
Functional medicine	11 (6)	51 (28)	43 (24)	13 (7)	69 (39)
Massage	8 (4)	111 (62)	30 (17)	4 (2)	32 (18)
Mindfulness	35 (20)	65 (36)	35 (20)	11 (6)	43 (24)
Naturopathic	8 (4)	32 (18)	28 (16)	53 (30)	64 (36)
Rolfing	1 (1)	24 (13)	20 (11)	48 (27)	91 (51)
Tai Chi	7 (4)	57 (32)	49 (27)	8 (4)	63 (35)
Yoga	12 (7)	88 (49)	39 (22)	7 (4)	46 (26)
Chronic pain					
Acupuncture	38 (21)	97 (54)	12 (7)	10 (6)	32 (18)
Aromatherapy/essential oils	7 (4)	25 (14)	23 (13)	61 (34)	72 (40)
Chiropractic	7 (4)	101 (56)	23 (13)	21 (12)	34 (19)
Cryotherapy	16 (9)	32 (18)	26 (15)	37 (21)	74 (41)
Dietary/nutritional guidance	48 (27)	93 (52)	22 (12)	2 (1)	25 (14)
Energy healing	4 (2)	33 (18)	33 (18)	54 (30)	66 (37)
Functional medicine	12 (7)	56 (31)	42 (23)	11 (6)	67 (37)
Massage	8 (4)	114 (64)	28 (16)	1 (1)	35 (20)
Mindfulness	40 (22)	62 (35)	32 (18)	10 (6)	42 (23)
Naturopathic	7 (4)	32 (18)	33 (18)	49 (27)	65 (36)
Rolfing	2 (1)	25 (14)	22 (12)	51 (28)	87 (49)
Tai Chi	7 (4)	63 (35)	46 (26)	10 (6)	58 (32)
Yoga	13 (7)	93 (52)	34 (19)	4 (2)	34 (19)

Shaded rows are the three most frequently offered or referred modalities for acute or chronic pain.

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selected based on ''demonstrated performance'' (111; 68%), ''available in practice plan'' (92; 56%), ''certification'' (71; 44%), ''licensure'' (69; 42%), ''special training'' (65; 40%), or ''other criteria'' (24; 14%). ''Services not eligible for insurance reimbursement'' was the most common perceived barrier to offering CAM (119; 69%).

Discussion

Consistent with data from the military system, nutritional guidance, mindfulness, yoga, and acupuncture were often available and offered for acute and chronic pain conditions, while energy healing, aromatherapy, and Rolfing were infrequently available.[3] Frequently utilized modalities were generally more likely to be available in clinic; however, yoga was frequently referred to outside venues, likely because of its group setting. CAM utilization was comparable and generally low among pain conditions, except for fibromyalgia. Scientific evidence was the most common rationale supporting the selection of CAM modalities.[1,2] CAM providers were primarily selected based on demonstrated performance rather than credentials. Lack of insurance coverage was the main barrier to integration of CAM services, despite recommendations to reform our national health care system.[4–8] Our study is limited due to the small sample and possible participant selection bias. However, this study is an important first step in addressing the knowledge gap regarding the extent of integration of CAM therapies into clinical practice in outpatient pain centers and highlights additional directions for further research.

Authors' Contributions

J.W.C. made substantial contributions to the conception and design of the study; the acquisition, analysis, and interpretation of data for the study; drafting, revising, and final approval of the study; and agreement to be accountable for all aspects of the study in ensuring that questions related to the accuracy or integrity of any part of the study are appropriately investigated and resolved. M.M.T. made substantial contributions to the conception and design of the study; the acquisition, analysis, and interpretation of data for the study; revising and final approval of the study; agreement to be accountable for all aspects of the study in ensuring that questions related to the accuracy or integrity of any part of the study are appropriately investigated and resolved. K.M.M. made substantial contributions to the conception and design of the study; interpretation of data for the study; revising and final approval of the study; agreement to be accountable for all aspects of the study in ensuring that questions related to the accuracy or integrity of any part of the study are appropriately investigated and resolved. J.R.K. made substantial contributions to the conception and design of the study; interpretation of data for the study; drafting,

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Author Disclosure Statement

No competing financial interests exist.

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