

The Use of Alternative Health Care by a Family Practice Population

CPT Christine E. Drivdahl MD, MC, USA, and LTC William F. Miser MD, MC, USA

Background: This study examined the characteristics of family practice patients using alternative medicine, the problems that led them to use it, and their satisfaction with its use.

Methods: A confidential questionnaire was mailed to 250 randomly selected adults enrolled in a large military family practice clinic, with a final response rate of 71 percent.

Results: More than 28 percent of patients used some form of alternative medicine. The typical user was 30 to 49 years old, female, white, and well educated. Common methods used were chiropractic (64 percent), massage therapy (36 percent), herbal therapy (32 percent), and acupuncture (16 percent). The most common problems for which patients sought alternative care were back pain (56 percent), other musculoskeletal pain (22 percent), and stress or other psychosocial problems (20 percent). Fewer than one half were satisfied with their alternative health care, although 82 percent reported at least some improvement in their conditions. Most (63 percent) had not told their family physician of their use of alternative health care.

Conclusions: A substantial number of family practice patients are using alternative medicine. Although most derive some benefit, most are not satisfied with the results. Reasons for this disparity between satisfaction and effectiveness of alternative medicine deserve further study. (J Am Board Fam Pract 1998;11:193-9.)

Alternative medicine is generally defined as those healing therapies that typically fall outside the Western biomedical model of disease, diagnosis, and treatment. It encompasses a wide spectrum of methods and appears in the medical literature and the lay press under a variety of labels, such as complementary, holistic, unconventional, non-Western, natural, nonorthodox, mind-body, and new medicine.¹⁻³ The Office of Alternative Medicine of the National Institutes of Health has divided alternative medicine into the following seven major categories: (1) mind-body interventions (eg, biofeedback, relaxation, meditation, hypnosis, and imagery), (2) bioelectromagnetic therapies, (3) alternative systems of medical practice (eg, acupuncture, homeopathy), (4) manual healing methods (eg, osteopathic and chiropractic manipulation, physical therapy and massage, reflexology, and hands-on healing), (5) pharmacologic and biologic treatments (eg, chelation, shark cartilage, and intravenous ozone),

(6) herbal medicine, and (7) diet and nutrition.¹

Recent studies have shown that many patients are seeking alternative health care. A 1990 study of US adults found that 34 percent had used at least one unconventional therapy during the previous year.⁴ A nine-country European study found utilization rates of 18 to 75 percent for having ever used alternative methods,⁵ whereas a survey of Canadians found that 20 percent had used alternative care in the previous 6 months.⁶ Other studies have found substantial use among patients attending specialty clinics: 44 percent of patients attending clinics for those infected with the human immunodeficiency virus (HIV) in Philadelphia,⁷ 66 percent of patients attending a rheumatology clinic,⁸ and 18 percent of patients being seen at a gastroenterology clinic.⁹

There is some indication that the popularity of alternative medicine among both patients and physicians is growing within the United States. Nearly 40 percent of all family medicine departments offer some kind of instruction in alternative therapies, and the Office of Alternative Medicine is actively funding research at several academic centers.¹ Several managed care organizations and insurance companies are now including various forms of alternative therapies in their coverage. One author recently predicted that in less than a generation "the approach and techniques currently

Submitted, revised, 3 September 1997.

From the Department of Family Practice, Madigan Army Medical Center, Tacoma, Wash. Address reprint requests to Christine E. Drivdahl, MD, Department of Family Practice, Reynolds Army Community Hospital, Fort Sill, OK 73503.

The opinions and assertions contained herein are the private views of the author and are not to be construed as official or as reflecting the views of the United States Army, the Department of Defense, or the US Government.

called 'alternative' will be an integral part of the practice of all family physicians."¹

Despite this growing interest in alternative medicine, very few studies have specifically addressed its use among patients within a primary care setting. One study of patients in a general practice setting in London found that 34 percent of men and 46 percent of women had used alternative medicine during the previous 10 years.¹⁰ This study determined the age and sex of the users but did not address other sociodemographic characteristics. Another study reported alternative medicine usage in rural Alberta, Canada.¹¹ There have also been a few studies within the United States that addressed use of a specific alternative method, such as folk medicine and faith healing, among patients in a primary care setting.^{12,13}

Since little is known about alternative medicine use among patients in a family practice setting, we conducted this descriptive study. Our purpose was to find out the following: (1) What percentage of our family practice patients use alternative health care? (2) What are the sociodemographic characteristics of these patients? (3) What problems lead them to seek this care? (4) What alternative methods are they using? (5) Do they think it is effective, and are they satisfied with it? (6) Have they informed their family physician that they are using alternative health care? Knowing this information will allow family physicians to make informed decisions about the role of alternative medicine in the care of our patients, and the expenditure of declining resources, such as money available for health care and research funding.

Methods

Our study was conducted in 1995 at the family practice residency program at Madigan Army Medical Center, Tacoma, Wash. Patients eligible for this study included more than 15,000 adults, 18 years of age or older, who were enrolled in the residency program as beneficiaries of the military health care system. A pilot study of 25 adults in this clinic found that 28 percent had used alternative medicine. To establish a significant difference between users and nonusers, we needed at least 160 subjects, 40 of whom would be users of alternative medicine. Assuming a return rate of 60 percent, we needed a sample size of 250.

A study questionnaire was mailed to a sample group of 250 patients randomly selected from a

computer-generated list of all adults registered for care in our family practice center. To ensure an equal distribution of men and women, first a man and then a woman was alternately selected from the random list. Each recipient was given an identification number for mailing purposes. The return questionnaires were tabulated by a second researcher who did not have access to the mailing list, assuring confidentiality. If a questionnaire was returned because the recipient no longer lived at that address, attempts were made to find a current address for re-mailing. If a current address could not be found or if the person had moved out of the area, a new patient was then selected as previously described. A second mailing was sent to nonrespondents 1 month later.

The following definition of alternative medicine was used in our study and stated in the cover letter: "Those therapies not widely taught in most North American medical schools, nor widely available in most North American hospitals or clinics." Examples that were given in the cover letter were chiropractic, acupuncture, and homeopathy. We did not differentiate between self-administered therapies and formal care from an alternative medicine practitioner.

The questionnaire consisted of two parts. The first section completed by all respondents consisted of nine questions eliciting sociodemographic information, self-assessment of health, and use and satisfaction of care in the family practice center. Respondents were then asked whether they have ever sought alternative health care and were subsequently classified as users or nonusers of alternative care.

Those who defined themselves as users were asked to complete the second half of the questionnaire. This portion consisted of 13 questions that described the alternative method(s) used, the problems or symptoms that prompted their use, how they learned about the method(s), and their assessment of satisfaction and effectiveness of the method(s). The remaining questions tried to establish the relation of their alternative medicine use to the care they received at the family practice center. For instance, they were asked whether they had already seen their family physician for the same problem; if so, how many times, and how satisfied were they with that care. Also, they were asked whether they had told their family physician about their use of alternative medicine and how that dec-

Table 1. Sociodemographic Characteristics of 177 Family Practice Patients Who Have (n = 50) and Have Not (n = 127) Used Alternative Care.

Characteristics	Overall* No. (%)	Percent Users	Percent Nonusers	P Value†
Sex				
Female	92 (56.1)	34.8	65.2	NS, 0.08
Male	72 (43.9)	22.2	77.8	
Age (years)				
18-29	25 (14.4)	24.0	76.0	NS, 0.16
30-49	71 (40.8)	38.0	62.0	
50-69	44 (25.2)	20.5	79.5	
> 69	34 (19.6)	23.5	76.5	
Race, ethnicity				
White	125 (71.8)	29.6	70.4	NS, 0.41
African American	19 (10.9)	15.8	84.2	
Hispanic	10 (5.7)	20.0	80.0	
Asian	16 (9.2)	37.5	62.5	
Other	4 (2.3)	50.0	50.0	
Marital status				
Married	155 (88.1)	27.7	72.3	NS, 0.80
Single, never married	4 (2.3)	25.0	75.0	
Widowed	13 (7.4)	30.8	69.2	
Divorced	4 (2.3)	50.0	50.0	
Education				
High school or less	48 (27.1)	10.4	89.6	< 0.01
Some college, college graduate	100 (56.5)	34.0	66.0	
Postgraduate education	29 (16.4)	37.9	62.1	
Annual income				
\$ 0 - 20,000	43 (26.0)	18.6	81.4	NS, 0.10
\$21 - 40,000	83 (50.3)	33.7	66.3	
\$41 - 60,000	23 (14.0)	43.5	56.5	
> \$60,000	16 (9.7)	18.8	81.2	

*Total in some categories less than 177, because not every question was answered by all.

†Determined by chi-square.

NS - nonsignificant.

laration was received.

The results are a descriptive analysis of the responses from those patients who had used alternative health care methods. Chi-square was used to analyze the categorical demographic information of all respondents.

Results

Of the 250 distributed surveys, 177 (70.8 percent) were returned. The demographics of those who responded generally reflected those of the military population, except that most respondents (88.1 percent) were married (Table 1). Also notable was the overall education level, with more than 70 percent of the respondents having at least some college education. Most (72.6 percent) considered

their health to be good or excellent (Table 2). About 90 percent had been seen in the family practice center at least once in the past year, with 44.3 percent being seen from two to five times. Most (92.5 percent) were satisfied with the care they had received.

Fifty (28.2 percent) of the 177 respondents had used alternative medicine. Comparing those who had used alternative health care with those who had not, there were no significant differences in sex, age, race, marital status, annual income, subjective state of health, and number of family practice center visits in the past year (Tables 1 and 2). There were some notable trends, however. Women were more likely to have used alternative medicine compared with men (34.8 versus 22.2

Table 2. Perceived Health Status and Use of Family Practice Clinic by 177 Patients According to Those Who Have (n = 50) and Those Who Have Not (n = 127) Used Alternative Care.

Characteristics	Overall* (n = 177) No. (%)	Percent Users	Percent Nonusers	P Value†
Subjective state of health				
Excellent	46 (26.3)	21.7	78.3	NS, 0.07
Good	81 (46.3)	37.0	63.0	
Fair	42 (24.0)	16.7	83.3	
Poor	6 (3.4)	33.3	66.7	
Family physician visits in past year				
None	19 (10.8)	5.3	94.7	NS, 0.16
1	37 (21.0)	32.4	67.6	
2 - 5	78 (44.3)	30.8	69.2	
6 - 10	28 (15.9)	35.7	64.3	
>10	14 (8.0)	21.4	78.6	
Satisfaction with care in family practice clinic				
Very satisfied	118 (68.2)	23.7	76.3	< 0.05
Somewhat satisfied	42 (24.3)	35.7	64.3	
Somewhat dissatisfied	12 (6.9)	58.3	41.7	
Dissatisfied	1 (0.6)	0.0	100.0	

*Total in some categories less than 177, because not every question was answered by all.

†As determined by chi-square.

percent). Use was most common among the 30- to 49-year age group (38.0 percent), with a fairly even distribution among the other age groups. Whites were nearly twice as likely (29.6 percent) to use alternative medicine as were African Americans (15.8 percent). Although the numbers are few, Asians (37.5 percent) were more likely than any other group to use alternative medicine. The numbers in the other racial and ethnic groups were too few to draw any conclusions.

The better educated patients were more likely to use alternative medicine. One third of those who had either attended or graduated from college and 37.9 percent of postgraduates had used alternative health care compared with only 10.4 percent of those with a high school education or less ($P < 0.01$). Those with an income of \$21,000 to \$60,000 were almost twice as likely to have used alternative medicine compared with those in the lowest income (less than \$20,000) and highest income (more than \$60,000) brackets.

Those who considered their health to be good were most likely to have used alternative care (37.0 percent), and the next most frequent users were those who considered their health to be poor (33.3 percent). Of those respondents who were somewhat dissatisfied with their care in the family prac-

tice center, 58.3 percent had used alternative medicine compared with less than one fourth of those who were very satisfied with their care ($P < 0.05$).

The most common method of alternative medicine sought by the respondents was chiropractic (64 percent), followed by massage therapy (36 percent), and herbal therapy (32 percent) (Table 3). A variety of other methods, including acupuncture, homeopathy, naturopathy, hypnosis, biofeedback, and reflexology, were used to a much lesser extent. One half of the respondents using alternative care had tried more than 1 method, 18 percent used 2 methods, 24 percent used 3, and 8 percent used 4 or more.

The most common reason for seeking alternative care was back pain, with 56 percent of users listing this as their presenting complaint. Back pain accounted for more than one third (36 percent) of all reasons given for using alternative therapy (Table 4). Many other respondents used alternative medicine for a variety of pain complaints, including dysmenorrhea, headaches, and musculoskeletal pain. Taken together, pain was the primary complaint of nearly 90 percent of the users at one time or another and accounted for 62 percent of all primary complaints. A number of persons also used alternative medicine for mental health-related is-

Table 3. Alternative Therapies Used by 50 Family Practice Patients, by Decreasing Frequency of Use.

Method	Patients Using Method* No. (%)
Chiropractic	32 (64)
Massage	18 (36)
Herbal therapy	16 (32)
Acupuncture	8 (16)
Homeopathy	5 (10)
Naturopathy	4 (8)
Hypnotism	3 (6)
Biofeedback	3 (6)
Reflexology	2 (4)
Faith healing	2 (4)
Vitamin therapy	2 (4)
Acupressure	1 (2)
Medicine man	1 (2)
Reiki (energy work)	1 (2)
Scientology	1 (2)

*More than one half had tried more than one method.

sues, accounting for 18 percent of primary complaints. There were many other complaints, with infectious, gastrointestinal, and genitourinary conditions being mentioned.

When asked about satisfaction with alternative care, 49 percent were either somewhat or very satisfied. Interestingly, although most respondents were not satisfied with their alternative health care, 82 percent reported at least some improvement in their condition, with 40 percent reporting great improvement and 8 percent reporting a cure. For those who noted improvement, the effect lasted only 1 to 3 months in 32 percent, 6 to 12 months in 21 percent, and more than 1 year in 32 percent.

Most of the users of alternative health care (57 percent) had already seen their family physician for their medical condition. Of these users, 60 percent had seen their family physician 2 to 5 times and another 30 percent had seen their family physician 6 to 10 times for that condition. Not surprisingly, 45 percent of these patients were not satisfied with their care in the family practice center for this condition. Two thirds of patients who used alternative care did so in conjunction with traditional medicine, however, whereas only 16 percent used it in place of traditional medicine, and 18 percent used it where traditional medicine failed.

Most users learned about alternative medicine

Table 4. Conditions for Which Alternative Medicine Was Used, by Decreasing Frequency.

Condition	Number	Percent
Back pain	28	36
Musculoskeletal pain (not back)	13	17
Headache	5	6
Fatigue	4	5
Allergies, head colds	4	5
Need to relax	3	4
Dysmenorrhea	2	3
Depression	2	3
Obesity	2	3
Cancer	2	3
Smoking	2	3
Hyperlipidemia	2	3
Hypertension	2	3
Hemorrhoids	1	1
Spastic colon	1	1
Ulcerative colitis	1	1
Bulimia	1	1
Bladder problems	1	1
Vaginal yeast infection	1	1

from a family member or friend. Only 18 percent had obtained the information from a physician or nurse. Moreover, of those who used alternative medicine, only 37 percent had told their family physician. When patients did share this information with their family physician, the physician's reported reaction to this disclosure was perceived as interested 63 percent of the time and supportive 19 percent of the time.

Discussion

We found that 28.2 percent of responding adults (22.5 percent of men and 34.8 percent of women) eligible for care in our family practice clinic had used some form of alternative medicine. This percentage is comparable to but lower than that found by others. Eisenberg et al⁴ found that 34 percent of US adults had used at least one unconventional therapy during the previous year, whereas Murray and Shephard¹⁰ reported that 34 percent of men and 46 percent of women in London have used alternative health care.

Similar to the findings of Eisenberg et al,⁴ in our study the use of alternative medicine was significantly more common among patients with higher education and generally more common among patients who were women, white, aged 30 to 49 years, and in a middle-income bracket. An Australian study found that the majority of patients seeking alternative care were women aged 30 to 49

years, and that 45 percent had some sort of tertiary education.¹⁴ A similar study in Great Britain found that 63 percent of attendees were women and the majority were 45 to 64 years of age.¹⁵ Studies of patients being seen in specialty clinics tended to follow this same pattern,^{8,9} with the exception of those being seen in the HIV clinics, who were more likely to be men.⁷

Our study also found that more than one third of those of Asian heritage had used alternative medicine. Although the numbers are too small to determine statistically significant differences, we did find that 50 percent (3 of 6) of Asian patients used acupuncture, compared with only 14 percent (5 of 37) of white patients.

Chiropractic and massage were the most common therapies used by our patients. This finding is similar to that of other studies, which show the most popular methods are the physical manipulation techniques.^{1,9,10} Murray and Shephard¹⁰ found that 43 percent of the patients sampled had used manipulative treatment, including osteopathy, massage, chiropractic, and acupuncture. We did not list osteopathy as an alternative treatment, because a number of the family physicians in our clinic are doctors of osteopathy.

Although our and other studies have found a significant use of physical manipulation techniques, this use varies greatly depending on the particular group studied. Cancer patients tend to use more spiritual or mental techniques, with mental imagery prevailing.¹⁶ Patients with HIV tend to use the ingested or applied therapies such as immune-enhancement agents, dietary modification, herbal preparations, and vitamin supplements.^{7,17}

Pain, specifically when it involves the back, was the most common condition for which alternative medicine therapies were sought. Eisenberg et al⁴ reported that 20 percent of patients used unconventional therapy for back problems, while another 29 percent used it for arthritis and sprains or strains. The study by Moore et al¹⁷ of patients at an alternative therapy center in London found that nearly 45 percent complained of pain. The second most common conditions for which our patients sought alternative health care were mental health-related issues such as stress, depression, and fatigue.

In general, studies show that the conditions for which people seek alternative care seem to have one common denominator—they are

chronic.^{4,9,10,14,17} It is not surprising, then, that many patients seek alternative treatment because conventional methods have failed.^{17,18} It does not appear, however, that patients are abandoning conventional medicine. In fact, many studies have shown that patients who use alternative methods also continue to use traditional medicine.^{4,10,14-17} We also found that patients continue with traditional medicine, with two thirds of respondents using alternative care in conjunction with traditional medicine, and only 16 percent using it in place of traditional medicine.

We found that more than one half of the users of alternative medicine were not satisfied with their alternative care. This lack of satisfaction is somewhat surprising, given that 82 percent of the same sample reported at least some improvement in their condition, with nearly one half reporting great improvement or cure. The reason is unclear. Perhaps the nature and chronicity of the conditions for which alternative medicine is sought leads to patient dissatisfaction, regardless of the type of medicine. Perhaps more people expected to be cured, or perhaps they were dissatisfied because they expected a longer symptom-free period, since nearly one third of respondents reported that the effect of therapy only lasted 1 to 3 months. We wondered whether those patients who were dissatisfied with alternative care were those who generally perceived their health status to be poor. Nevertheless, we did not find any significant association between satisfaction and self-perceived health status.

There is little information in the literature on the satisfaction with alternative medicine compared with traditional medicine, which is surprising given the amount of money (more than \$14 billion) spent on alternative medicine each year in the United States.² A study of patients being cared for in a gastroenterology clinic did show that only 54 percent of alternative medicine users, compared with 85 percent of nonusers, were satisfied with conventional medicine.⁹ Of this same group of users, 63 percent were satisfied with alternative medicine. So while patients value the additional time and interaction with alternative practitioners^{12,14,17,18} and seem to derive actual relief, even if short-lived, only about one half seem to be satisfied with their alternative therapy. This phenomenon deserves further attention and study.

Finally, we found that only one third of the pa-

tients had told their family physician they were using some form of alternative health care. Eisenberg et al⁴ similarly found that only about 30 percent of patients mention its use to their medical doctors. This finding is contrasted with findings of recent studies that suggest family physicians are enthusiastic and interested in alternative medicine.^{2,19,20}

Our study was limited by the relatively few patients, especially with regard to minority groups. Also, our family practice center population could be unique, because they are active and retired military personnel and family members, and they had access to care at our clinic without charge. One could hypothesize that a military setting could influence decisions about seeking alternative care outside the family practice center. Finally, our clinic is located in a geographic area that offers a wide range of different alternative health care practitioners and options; such an availability might have influenced the percentage of patients that sought alternative medicine.

Conclusions

We found that a substantial percentage of the patients eligible for care in our family practice clinic are using alternative health care methods. The average user tends to be well-educated, of middle-income, female, aged 30 to 49 years, and white. Most sought care for pain, specifically back pain, and most used chiropractic and massage therapy. Although many patients reported improvement in their condition, less than one half were satisfied with their alternative care. This phenomenon deserves further investigation.

References

- Gordon JS. Alternative medicine and the family physician. *Am Fam Physician* 1996;54:2205-12.
- Borkan J, Neher JO, Anson O, Smoker B. Referrals for alternative therapies. *J Fam Pract* 1994;39:545-50.
- Neher JO, Borkan JM. A clinical approach to alternative medicine. *Arch Fam Med* 1994;3:859-61.
- Eisenberg DM, Kessler RC, Foster C, Norlock FE, Calkins DR, Delbanco TL. Unconventional medicine in the United States. Prevalence, costs, and patterns of use. *N Engl J Med* 1993;328:246-52.
- Semeus G. Alternative medicine in Europe: a quantitative comparison of the use and knowledge of alternative medicine and patient profiles in nine European countries. Brussels, Belgium: Belgian Consumers' Association, 1987.
- One in five Canadians is using alternative therapies, survey finds. *Can Med Assoc J* 1991;144:469.
- Anderson W, O'Connor BB, MacGregor RR, Schwartz JS. Patient use and assessment of conventional and alternative therapies for HIV infection and AIDS. *AIDS* 1993;7:561-5.
- Boisset M, Fitzcharles MA. Alternative medicine use by rheumatology patients in a universal health care setting. *J Rheumatol* 1994;21:148-52.
- Verhoef MJ, Sutherland LR, Brkich L. Use of alternative medicine by patients attending a gastroenterology clinic. *Can Med Assoc J*. 1990;142:121-5.
- Murray J, Shepherd S. Alternative or additional medicine? An exploratory study in general practice. *Soc Sci Med* 1993;37:983-8.
- Verhoef MJ, Russell ML, Love EJ. Alternative medicine use in rural Alberta. *Can J Public Health*. 1994; 85:308-9.
- Cook C, Baisden D. Ancillary use of folk medicine by patients in primary care clinics in southwestern West Virginia. *South Med J* 1986;79:1098-101.
- King DE, Sobal J, DeForge BR. Family practice patients' experiences and beliefs in faith healing. *J Fam Pract*. 1988;27:505-8.
- Lloyd P, Lupton D, Wiesner D, Hasleton S. Choosing alternative therapy: an exploratory study of sociodemographic characteristics and motives of patients resident in Sydney. *Aust J Public Health*. 1993;17:135-44.
- Thomas KJ, Carr J, Westlake L, Williams BT. Use of non-orthodox and conventional health care in Great Britain. *BMJ* 1991;302:207-10.
- McGinnis LS. Alternative therapies, 1990. An overview. *Cancer* 1991;67(6 Suppl):1788-92.
- Moore J, Phipps K, Marcer D, Lewith G. Why do people seek treatment by alternative medicine? *Brit Med J Clin Res Ed* 1985;290:28-9.
- Fawcett J, Sidney JS, Hanson MJ, Riley-Lawless K. Use of alternative therapies by people with multiple sclerosis: an exploratory study. *Holist Nurs Pract* 1994;8:36-42.
- Berman BM, Singh BK, Lao L, Singh BB, Ferentz KS, Hartnoll SM. Physicians' attitudes toward complementary or alternative medicine: a regional survey. *J Am Board Fam Pract* 1995;8:361-6.
- Blumberg D, Grant W, Hendricks S, Kamps C, Dewan M. The physician and unconventional medicine. *Alternative Ther* 1995;1:31-5.