



## Alternative Pharmacotherapy

### Patterns of Patient Use and Family Physician Practice

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- **BACKGROUND** The use of alternative pharmacotherapies is rapidly increasing. Many persons who use purchased or prepared alternative medications are also cared for by family physicians. We describe patient usage of alternative pharmacotherapies and examine how family physicians handle this in medical practice.
- **METHODS** We recorded data from structured interviews of 178 patients in an academic family medicine practice in a midsized southern city. We then examined the medical records of each participant who reported using some form of alternative pharmacotherapy to determine whether there was discussion of this use with the physician.
- **RESULTS** Approximately one third of the patients reported using some form of alternative pharmacotherapy for 1 year or less, learning about alternative medications mostly from the media, and being generally satisfied with the results. Eighty-four percent of the patients reported not having been asked by their physician about their use of these drugs on the day of their office visit, and more than half reported never having been asked about their use of them. Medical record reviews indicated that for the most part physicians did not document having discussed or making recommendations about the use of alternative pharmacotherapies at any point in their relationship with the patient.
- **CONCLUSIONS** Since many of their patients are using alternative pharmacotherapies, family physicians are encouraged to learn more about what their patients use, to institute easy systemwide changes to facilitate discussion about this use with their patients, to document alternative drugs used, and to give recommendations regarding them.
- **KEY WORDS** Alternative medicine; vitamins; herbs. (*J Fam Pract* 2000; 49:927-931)

Patient use of alternative medicine is increasing rapidly. The most common form of alternative treatment is self-medication with herbs (botanicals or phytomedicines), vitamins, or other pharmaco-

logic or biologic substances.<sup>1,3</sup> Data from family practice patients reflect that 28% to 50% use some form of alternative medicine, and at least one third also take some form of alternative pharmacotherapy, usually herbs.<sup>4,5</sup> Alternative pharmacotherapy is now widely available in most supermarkets, drug-stores, natural food shops, and from on-line stores. In early November 1999 we used a popular public Internet search engine to locate 505 Web sites for "alternative medicine," 1100 sites for "herbs," and more than 15,000 listings for individual herbs from 571 on-line stores.

Patients who self-medicate with herbs for preventive and therapeutic purposes may assume that these products are safe because they are natural; however, concerns about the safety of these products are well founded. Some herbal products can cause adverse side effects, such as nephropathy and hepatic toxicity, have the potential to interact with or potentiate prescription medications, and may contain high levels of contaminants, such as mercury, lead, and other toxic substances that can result in poisoning.<sup>6-16</sup> Chemical analysis has shown that some herbal preparations contain heavy metals or other toxins, and some do not contain some of the desired chemicals they advertise.<sup>17</sup> Many herbal or other alternative preparations are considered dietary supplements, so their manufacture and contents are not monitored by the Food and Drug Administration (FDA) or other regulatory bodies.<sup>18</sup> Of the more than 1400 herbs promoted and sold as medicine, the FDA has approved only 9.<sup>17</sup> Although these products have shown promise as treatments for health concerns ranging from depression and cholesterol management to fertility enhancement and immune system stimulation, more clinical information is warranted.

• Submitted, revised, May 9, 2000.

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**TABLE 1**

**Alternative Pharmacotherapies Used by Patients in This Study**

VITAMIN/HERB/SUBSTANCE	SUGGESTED USE	NO. PATIENTS REPORTING USE
Bilberry fruit extract	Night vision	5
Capsaicin	Neuropathic pain	2
Chromium	Weight loss	4
Coenzyme Q10	Cure all	3
Creatine	Athletic enhancer	2
Echinacea	Common cold	5
Fish oil	Heart disease reduction	1
Garlic	Cholesterol reduction	7
Ginkgo biloba	Dementia/memory loss	8
Ginseng	Overall feel good/menopause	9
Glucosamine sulfate	Arthritis	3
Kava	Anxiety	3
Melatonin	Insomnia	1
Milk thistle	Hepatitis/cirrhosis	1
Saw palmetto	Benign prostatic hypertrophy	2
Soy protein isolate powder	Hot flashes	2
St. John's wort	Depression	2
Tea tree oil	Antimicrobial agent	1
Vitamin E	Heart disease/memory (dementia)	13
Zinc	Common cold/antioxidant	6

NOTE: This table constitutes the list of the substances/herbs we considered alternative. In addition to these, patients in our study reported taking: bee pollen (1); beta carotene (1); calcium (1); chelation therapy (1); chitosan (1); cranberry (1); fat burner (1); folic acid (2); garcinea (1); goldenseal (1); green tea (1); KM, a multiherb preparation (1); lutin, potassium (1); protein supplement (1); spirulina (1); Swiss herbal laxative, Thermodrean (1); vanadyl sulfate (1); and vitamin B complex (3); vitamin C (5); and vitamin K (1).

were then asked: "Do you use any type of medications, herbs, vitamins, or other substances other than what your physician tells you to use?" One hundred twenty-three (69%) indicated they did not, and 55 (31%) indicated that they did. The study was briefly explained to these 55 patients, and informed consent was obtained from those who agreed to participate. Of those reporting use of alternative pharmacotherapy, 44 patients (80%) agreed to participate, and 11 (20%) refused. The participants included 18 men and 37 women; 60% were white, and 40%, African American. One participant was younger than 19 years; 31% were aged 20 to 40 years; 49% were aged 41 to 59 years; and 18% were older than 60 years. Chi-square analysis was used to test for differences among the groups. The participants responded to a brief series of questions regarding the purpose of their clinic visit, the name of the physician

Greater knowledge is needed about the use of alternative pharmacotherapies and particularly about the practice patterns of family physicians with regard to their patients who use them.<sup>19-23</sup> Although it is important for family physicians to be aware of and open to discussing their patients' interest in these alternative approaches, it is also important to include documentation of their use in the medical history and record.<sup>24-28</sup> Our study illustrates the use of common alternative pharmacotherapies in a sample of family practice patients. It also expands our understanding of family physician response to the increasing use of these therapies by their patients.

**METHODS**

Adult patients were recruited from an academic family medicine clinic in the Southeast United States from June 1999 to August 1999. A total of 204 patients were approached following their scheduled clinic visit, and 197 agreed to talk with the interviewer. Of these, 178 complete records of demographic data (age, race, sex) were obtained. Patients

seen, their history of self-medication with a list of commonly used vitamins and herbs (Table 1), the names of other substances they used that were not listed, the source of their information about vitamins and herbs, and their judgment about the helpfulness of the vitamins and herbs. To determine the extent of physician-patient discussion about alternative medication use, we assessed 3 levels of interaction: (1) we asked whether the physician had inquired about their use of vitamins and herbs during that day's visit, or ever, during the course of any clinic visit; (2) after all interviews were completed, we reviewed each patient's medical record to determine if the physician had documented anything about alternative medication use at any time in the relationship with the patient; and (3) we examined the medical record to determine the presence of more extensive recommendations for past, present, or future alternative medication use.

**RESULTS**

**Patterns of Patient Use.** For the 31% of the patients who used alternative pharmacotherapies, a

TABLE 2

**Patterns of Family Physicians' Practice with Patients  
Using Alternative Pharmacotherapy.**

QUESTION	N	%
<b>Asked about vitamins/herbs by physician today?</b>		
Yes	7*	15.9
No	37	84.1
<b>Ever asked about vitamins/herbs by physician?</b>		
Yes	18	40.9
No	26	59.1
<b>Any discussion ever documented in the medical record?</b>		
Yes	14	31.8
No	30	68.2
<b>Any alternative medication recommendation ever documented in medical record?</b>		
Yes	4	9.1
No	40	90.9

\*A review of the medical records for these 7 patients revealed that 6 contained no notation of alternative medication use recorded on the date of visit. One record contained a single reference to multivitamin use.

total of 42 different vitamins, herbs, or substances were taken representing 109 separate patient uses (Table 1). Forty-three percent of these alternative medications had been taken for the preceding 0 to 6 months, 12% for 7 to 12 months, 29% for 1 to 2 years, 12% for 3 to 5 years, 2% for 6 to 10 years, and 2% for 11 years or longer. The participants took 5% of the alternative pharmacotherapies 3 times daily, 14% twice daily, 76% once daily, 4% between one and 6 times per week, and 1% between one and 3 times per month. They reported getting most of their information about the alternative pharmacotherapies they take from the media or news (37%). Others received information from friends (24%), from a physician or nurse (14%), from family (12%), and from other sources (12%). In terms of therapeutic efficacy, 5% of the participants in this sample reported that the alternative medications they take are not helpful, 9% indicated that they are slightly helpful, 30% moderately helpful, 32% fairly helpful, 23% very helpful, and 2% were unsure about therapeutic effect. The 10 most frequently used alternative medications in order of frequency were: vitamin E, ginseng, ginkgo biloba, garlic, zinc, bilberry fruit extract, echinacea, vitamin C, chromium, and coenzyme Q10. The usage rates for these and other alternative medications are provided in Table 1. No significant differences in race, age, or sex were detected between those who reported using alternative medications and those who said they did not.

**Patterns of Family Physician Practice.**

Eighty-four percent of the participants reported that they were not asked about their use of alternative pharmacotherapies on the day of their clinic visit and interview (Table 2). More than half (59%) indi-

cated that the physician had never asked them about their use of alternative pharmacotherapies. Approximately two thirds (68%) of the participants' medical records contained no entry (at any place in the record) reflecting a conversation or interchange between the physician and the patient about their use of alternative medications. Ninety-one percent of the medical records contained no physician-documented recommendations about past, present, or future alternative medication use. Of the 7 participants reporting that they had been asked during that day's visit about their alternative medication use, no notation of such use was found other than one notation of the use of vitamins. No significant differences in race, age, or sex were detected between those who reported their physician asking about their use of alternative medications (today or ever) and those who reported not being asked. Analysis also revealed no significant differences in terms of race, age, or sex between those patients whose records contained documentation of discussion or recommendation about alternative pharmacotherapy use and those whose records did not.

## DISCUSSION

We found that one third of the patients who participated in our study reported using alternative pharmacotherapies, and more than half of these had done so once daily for 1 year or less. The relatively recent use may reflect the impact of increasing media attention on alternative drugs. More than one third of these patients reported learning about the alternative drug they use from the news or media. These substances were more frequently used for prevention of conditions such as heart disease,

dementia, memory loss, hypercholesterolemia, and cancer, and for treatment of menopausal symptoms and mood. The rate of physician inquiry about patient use of such alternative therapies does not match the increasing rate of use among patients. Documentation rates of physician inquiry or recommendation about alternative pharmacotherapy use were low regardless of the patient's race, age, or sex. No physician biases appeared operative in terms of whether the physicians discussed or documented the alternative pharmacotherapy use of their patients. The limitations of our study include a small sample size and the use of only one clinical site.

Growing use of alternative pharmacotherapies as first-line treatment or for prevention may represent a substantial change in patients' patterns of self-care and calls for a response on the part of physicians. To better address patients' use of alternative pharmacotherapies, physicians will need to inform themselves about the alternative drugs being used and document their use in the medical record. We suggest that the current physician-patient policy of "don't ask/don't tell" be replaced with easy systemwide changes implemented to ensure that appropriate information is obtained and documented as follows:

1. Physicians should include questions about alternative medications and dosages on intake and history forms.

2. Nursing staff can routinely ask about herbs, vitamins, or natural remedy use. A question such as, "What are you doing to manage or improve your health?" could be incorporated into a general inquiry about health promotion and disease prevention activities.

3. Signs in examination rooms prompting conversation about alternative treatments may also be helpful, such as: "If you take any vitamins, herbs, plants, or minerals, please discuss this with your doctor—your doctor needs to know."

4. Physicians should document all reported use of alternative treatments and physician recommendations. Documentation may remind the physician to inquire at each subsequent visit and to incorporate inquiry and documentation into standard practice. In doing so, physicians may notice local trends in the use of some alternative drugs for certain problems and can then direct more attention to that use in the population.

5. To better understand drug benefits, side effects, interactions, issues of contamination, and recommended dosages, use of a physician resource such as the *Physicians Desk Reference for Herbal Medicines*<sup>39</sup> is suggested. Because an ever-expanding amount of information about alternative pharmacotherapies is available on the Internet, we suggest the physician become familiar with at least a few reputable Web sites.\*

6. Patient education information covering bene-

fits and risks associated with popular substances should be made available. Medical students or residents should also be encouraged to familiarize themselves with these materials and discuss a patient's use of alternative medications with the attending physician.

## CONCLUSIONS

Becoming more aware of their patients' use of alternative pharmacotherapies will improve physicians' understanding of their patients' health care, will offer opportunities to give important warnings or advice about the use of alternative drugs or preparations, thereby reducing the chances of drug interaction, and will enhance physician-patient communication. Future studies should obtain data from larger samples and from multiple family practice sites in divergent geographic areas.

\*The following Web sites are good sources of information about alternative pharmacotherapies: American Botanical Council ([www.herbalgram.org](http://www.herbalgram.org)), Ask NOAH About: Alternative (Complementary) Medicine ([www.noah.cuny.edu/alternative/alternative.html](http://www.noah.cuny.edu/alternative/alternative.html)), and the National Center for Complementary and Alternative Medicine ([nccam.nih.gov/nccam/](http://nccam.nih.gov/nccam/)).

## ACKNOWLEDGMENTS

The authors would like to thank the Faculty Development Group of the Department of Family Medicine at the Medical College of Georgia for their review and suggestions regarding early versions of this manuscript.

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