# Referrals for Alternative Therapies

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*Background.* The purpose of this study was to examine how allopathic physicians participate in the decision to refer patients for alternative therapies.

*Methods.* A pretested, self-administered, structured questionnaire was distributed simultaneously to all area physicians at community locations in Washington State, New Mexico, and southern Israel. The primary outcome measures were monthly and yearly rates of referral to alternative therapies.

*Results.* More than 60% of all physicians made referrals to alternative providers at least once in the preceding year and 38% in the preceding month. Referrals were generally based on patient requests, synergy between the alternative therapy and the patients' cultural beliefs, failure of conventional treatment, and the belief that patients have "nonorganic" or "psychological" disease. There was no relationship between the rate of referral and the referring physician's level of knowledge about, beliefs about the effectiveness of, or familiarity with alternative therapies.

*Conclusions.* Primary care physicians are more likely than other medical specialists to be knowledgeable about, personally subscribe to, and refer patients for alternative therapies. Physicians who use alternative techniques for themselves and their families or who adopt complementary therapies into their practices have higher rates of referrals. Referral rates and patterns were similar between sites despite considerable cross-cultural and health system differences. Given the high rate of referral and the absence of an apparent internal logic for such recommendations, guidelines and physician education may be advisable.

*Key words.* Alternative medicine; physician practice patterns; referral and consultation. (*J Fam Pract 1994; 39:545-550*)

Seventy percent to 90% of medical episodes are dealt with in sites other than a physician's office, generally in the home or within the folk or popular culture sectors.[1] In Western societies, alternative healers provide a diverse range of services and constitute a thriving portion of the health care system, accounting for $14 billion of annual expenditures in the United States alone.[2,3]

The meaning of the term "alternative medicine" is influenced by local political, economic, and professional issues. In the United States, it stems from the professional hegemony of allopathic medicine (conventional biomedicine), which was institutionalized after the Flexner Report of 1910.[1,4] The consequences of this report and the movement toward "modern scientific medicine" led to the marginalization of other medical disciplines, such as homeopathy, chiropractic, and naturopathy. These healing traditions have continued to exist, however, and have been joined by an ever-growing list of diverse health-related therapies and systems.[5,6] A similar pattern exists in Israel, where alternative medicine has burgeoned in the past 10 years.

To be considered a "health care system" or "healing technique," an alternative method must claim to be curative, possess a systematized body of knowledge or theory and a technical intervention, and be executed by expert practitioners.[7] Packaged and marketed under such labels as "alternative," "complementary," "holistic," "nonorthodox," "unconventional," "non-Western," and "nat-

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ural," these therapies are attracting a large, probably increasing number of patients and practitioners.[3,8–10] One in three adults in the United States used unconventional therapy during 1990,[2] and a nine-country European study demonstrated patient utilization rates of 18% to 75% for ever having used alternative medicine.[11] Physicians (allopathic MDs and DOs) practice within health care communities that usually include a range of alternative practitioners. Patients frequently request alternative services or seek them out on their own.[3,7,9,11]

In this study, physicians' attitudes, knowledge, and practice are examined with regard to alternative therapies, particularly the decision to refer, and how they are influenced by practice location with different social and cultural contexts and type of medical specialty.

## Methods

### *Sites and Subjects*

Three sites were chosen—in Washington State, New Mexico, and southern Israel—for the purpose of comparing patterns of referral to alternative healers. Each community is socioculturally and geographically distinct and has an allopathic medical system organized around a single community hospital. The single institution model serves to ensure that all physicians have roughly equal access to area medical resources, including alternative medical providers, and are governed by similar medical and medicolegal standards. The circumscribed nature of the communities also facilitates easy sampling of all area physicians, rather than a random or stratified design.

The sites vary considerably in terms of geography, population, medical systems, and culture. The Washington State site represents predominantly white lower- and middle-income suburban America, whereas the New Mexico location typifies a poor Native American rural setting. The Israeli locale consists of a working- and middle-class, rural-urban population in a Western, although not American, framework.

The Washington State site has a population of approximately 350,000 and is located in a suburban area with a few large manufacturing and service industries. In addition to the estimated 90% white residents, there are also Americans of various other ethnic backgrounds, including African, Chinese, and Southeast Asian. Medically, the area is dominated by a 303-bed, full-service public hospital, with which nearly all of the area's 199 physicians are affiliated. A diverse array of alternative health care is readily available. High-visibility choices include chiropractic, naturopathy, and acupuncture.

The New Mexico locale consists of a Native American reservation with a population of 42,000 in a semiarid agricultural region. The population is 99% Native American (largely Navajo), and 1% Hispanic and white. Employment is primarily in agriculture and government services, with 50% of the community living below the poverty line. The primary and secondary medical needs of the community are served by a single 55-bed Indian Health Service hospital, staffed by 30 non-Native American physicians and one Native American physician. Native American healers, faith healers, and chiropractors are the most accessible providers of alternative therapies on the reservation. Acupuncture, therapeutic massage, and herbalist treatments are available within a 150-mile radius.

The Israeli site has a population of 32,000 and comprises a small city and 10 adjoining agricultural settlements. The region is located in the southern desert area and is geographically isolated from other urban centers. The population is composed of 95% Israeli Jews, the majority of whom have roots in North Africa, Eastern Europe, and Asia. The population is predominantly middle- and working-class people, employed primarily in services, building trades, and agriculture. The medical system is composed of three health maintenance organizations that insure nearly all (97%) of the population and furnish separate primary care services. Secondary care is provided by an 80-bed community hospital with which all the health maintenance organizations are affiliated. Forty-four physicians, divided nearly equally between primary and secondary care, staff the health care system. Alternative services are abundant: more than 30 healers provide everything from reflexology and acupuncture to movement therapies and homeopathy.

### *Data Collection*

The chief study instrument was a structured, self-administered questionnaire. To assist with questionnaire development, field observations and interviews were conducted with physicians, alternative providers, and patients in each community. Alternative medical systems and techniques were grouped according to the content of the healing methods they employ, irrespective of the type of practitioner. After surveying the communities for all available nonallopathic healing activities, only those fulfilling this study's criteria for an alternative health care system or complementary healing technique were included. The list includes acupuncture, homeopathy, hypnosis, folk healing, movement therapies (eg, yoga, Alexander technique, and dance therapy), spinal manipulation, spiritual therapies (eg, faith healing), and touch therapies (eg, reflexology or therapeutic massage).

The level of physician knowledge concerning alternative medicine was assessed by means of direct questions

Table 1. Demographic Characteristics of Physicians Who Were Sent Questionnaires About Alternative Health Care Therapies

| Physician Characteristic | Respondents (n=138) | Nonrespondents (n=137) |
|---|---|---|
| Average age, y (range) | 43.4 (29–68) | 46.9 (30–70) |
| Sex, no. | | |
| Male | 114 | 118 |
| Female | 24 | 19 |
| Practice location, no. | | |
| Washington State | 82 | 117 |
| New Mexico | 27 | 5 |
| Southern Israel | 29 | 15 |
| Specialty, no. | | |
| Primary care | 60 | 45 |
| Other | 78 | 92 |

about each therapeutic category. Physicians were asked to mark a response ranging from "not at all knowledgeable" to "very knowledgeable" using a 6-point scale. They were similarly questioned about their beliefs in the effectiveness of each technique. Familiarity with alternative therapists was determined by asking the physician if he or she knew the name or location of at least one provider of each of the alternative therapies in the community. Physicians were also asked whether they performed any alternative therapies in their practices and whether they or their family had ever undergone any alternative treatments.

The term *referral* was complicated by the medicolegal environments in which the study was undertaken. In all three systems, the physician carries some degree of legal responsibility for the competence of the consultant. In addition, in the Israeli managed care system and for some of the American health plans, formal referrals imply payment by the referring organization. After considering these constraints, *referral* was defined to include both formal and informal, verbal and written recommendations, advisements, or direction of patients to alternative techniques, regardless of documentation in the medical record. Physicians were asked to estimate their referral rates for each alternative therapeutic category on an annual basis and for the most recent month, and to delineate their reasons for these recommendations.

A Hebrew version of the questionnaire was translated from the English version with successful back-translation. Face validation of the cultural content of questions in the Israeli setting was first provided by two of the authors (an anthropologist and a sociologist). The questionnaire was then submitted to and assessed by a total of eight authorities from both countries who are knowledgeable about either alternative medicine or primary care research. They provided feedback on question substance and format. Finally, the questionnaire was pretested with 20 physicians in the United States and Israel.

Questionnaires were distributed simultaneously to all physicians at sites in Washington State, New Mexico, and southern Israel in the spring of 1992. Prestamped envelopes and designated hospital mailboxes were provided to ensure anonymous return. To increase the response rate, reminder letters with an attached questionnaire were sent 1 month after initial distribution. Questionnaires were coded at each site, with data entry and statistical analysis performed centrally. The analysis consisted of descriptive statistics, one-way analyses of variance (ANOVA), and correlations.

## Results

### *Demographic Characteristics of the Sample*

The overall response rate was 50.4%, (138 of 274), but varied by site. Eighty-seven percent of the questionnaires were returned in the New Mexico sample (27 of 31), 66% in Israel (29 of 44), and 41% in Washington State (82 of 199).

Of the 138 respondents, 24 were women and 114 were men, and their ages ranged from 29 to 68 with a mean of 43.4. Eighteen physicians practiced solely in a hospital setting, 101 in the community, and 18 in combination (one author did not provide this information). The sample represented a wide range of medical specialties, from general practice, family practice, and pediatrics to gynecology, surgery, and ophthalmology. Forty-four percent of the respondents were primary care physicians (family practice, general practice, pediatrics, and general internal medicine), while 56% represented other specialties. The percentage of physicians in primary care was 26% from the Washington State sample, 74% from New Mexico, and 66% from Israel.

Because of the anonymous nature of the survey, only limited characteristics of the nonrespondents could be determined. There were no statistically significant differences between nonrespondents and respondents in terms of age, sex, and specialty (Table 1).

### *Variations Among Practice Locations*

No significant differences in referral rates were noted between the Washington State, New Mexico, and Israeli sites. Fifty-five percent to 77% of physicians referred to alternative providers at least once during the previous year and 41% to 56% during the previous month. The mean number of referrals for all respondents was 3.7 per year and 2.1 in the previous month. The discrepancy between

Table 2. Attitudes, Knowledge, and Practices of Physicians Surveyed About Alternative Health Care Therapies, by Study Site (N=138)

| Physician Characteristic | Physician Practice Locations: Washington State (n=82) | New Mexico (n=27) | Southern Israel (n=29) |
|---|---|---|---|
| Refer patients | | | |
| Monthly, % | 44 | 56 | 41 |
| Yearly, % | 55 | 77 | 61 |
| Knowledge of therapies, mean* | 19.1 | 20.3 | 17.2 |
| Familiarity with where to obtain therapies, mean† | 1.9 | 1.4 | 1.6 |
| Belief in effectiveness of therapies, mean‡ | 18.0 | 17.5 | 14.5 |
| Use therapies for self or family, % | 42 | 63 | 48 |
| Incorporate alternative techniques into practice, % | 12 | 11 | 8 |

**Mean knowledge of therapies is based on the sum for nine categories of alternative therapies rated on a 6-point scale on which 1=not at all knowledgeable and 6=very knowledgeable; possible range, 9–54.*
*†Mean familiarity is based on the number of alternative therapies for which the physician knows the name or location of at least one provider.*
*‡Mean effectiveness of therapy is based on the sum for nine categories of alternative therapies rated on a 6-point scale on which 0=don't know, 1=not effective, and 6=very effective; possible range, 0–54.*
*NOTE: Differences between the practice locations were not significant.*

monthly and yearly figures was consistent between sites. Levels of knowledge, familiarity, and beliefs concerning the benefits of alternative techniques were similar at each locale. (Table 2).

Physicians' rationales for these referrals vary only slightly between sites, with similar rank ordering cross-culturally (Table 3). In general, physician respondents reported that their decision-making is based, in order of frequency, on patients' requests; on the synergy between the alternative therapy and the patients' cultural beliefs; on patients' lack of response to conventional treatment; and on the belief that patients have "nonorganic" or "psychological" disease. Few physicians admit to referring because they find particular patients annoying or because they received referrals from the alternative providers. When asked to whom they refer, 78% of respondents did not report a preference for either physician or nonphysician providers of alternative services.

Physicians who refer to alternative techniques recommend a wide range of healers. The most common referral, based on the most recent month of practice, is spinal manipulation (20 of 135, 15%), followed by acupuncture and hypnosis (15 of 135, 11%), and spiritual healing (13 of 135, 10%). Physicians refer least commonly to homeopathy (4 of 134, 3%), naturopathy (5 of 135, 4%), and movement therapies (8 of 135, 6%).

Physicians' appraisals of the benefit of a particular technique are related to the number of referrals they make to that technique both on a yearly and on a "last month" basis ($P<.01$). Similarly, the frequency of referrals is related to physician knowledge about where to obtain such services ($P<.01$). Physicians who utilize alternative techniques for themselves and their families (47%) are more likely to refer their patients to alternative healers ($P<.01$). Finally, physicians who adopt complementary therapies into their practices (23% of the total) have higher rates of monthly and yearly referrals ($P<.01$). Thirteen (10%) acknowledged using hypnosis in their work, and 5% practice spinal manipulation, acupuncture, and/or spiritual healing.

### *Variations in Physician Specialty Type*

When referral rates were analyzed by physician characteristics, differences were significant only for specialty type. When primary care specialists were compared with other specialists, there were significant differences in estimated referrals per year, with primary care physicians referring 2.33 times more often ($P<.001$). This pattern was also present for referrals during the most recent month, during which primary care specialists referred 1.84 times more frequently ($P<.001$). Generally, primary care physicians and specialists referred patients to alternative providers for the same reasons.

Primary care physicians were three times more likely than other specialists to practice one of the alternative techniques themselves (38.3% vs 10.3%, $P<.001$) and were somewhat more likely to utilize alternative healing for themselves or their families (55% vs 41%, $P<.05$). Primary care physicians were also more knowledgeable about alternative practices and believed them to be more beneficial, although these results are not statistically significant ($P$=NS).

No differences in referral rates, knowledge, or attitudes about effectiveness were detected when physicians were compared on the basis of age or sex. Age was dichotomized at 40, with 46% of respondents 40 years of age or younger and 54% older than 41 years of age. Similarly, there were no differences in utilization rates for these variables.

## Discussion

### *Rates and Rationales of Referrals*

Given the professional biases and the medicolegal barriers, perhaps the most significant aspect of this study is the consistently high level of physician referrals to alternative

Table 3. Physicians' Rationales for Referrals to Alternative Health Care Therapies

| Reason Given by Physician | Washington, % n=80 | New Mexico, % n=27 | Southern Israel, % n=28 | Primary Care, % n=60 | Other Specialties, % n=75 | Total, % n=135 |
|---|---|---|---|---|---|---|
| The patient requests it | 39 | 74 | 50* | 62 | 37* | 48 |
| The alternative technique fits the patient's belief system | 39 | 74 | 32* | 60 | 32* | 44 |
| The patient does not get better with my therapy | 25 | 41 | 39 | 45 | 20* | 31 |
| The alternative technique complements my own therapy | 20 | 52 | 25* | 38 | 19† | 27 |
| I believe the patient has a "nonorganic" or "psychological" disease | 14 | 44 | 19† | 32 | 16† | 23 |
| There are particular illnesses that alternative therapies address better | 20 | 26 | 21 | 28 | 16 | 22 |
| I believe the patient has a "culturally based" illness | 14 | 56 | 4‡ | 27 | 15 | 20 |
| There is a strong alternative provider in the community with whom I have had good success | 19 | 22 | 19 | 25 | 15 | 19 |
| The alternative technique has helped me or someone close to me | 15 | 19 | 14 | 11 | 10 | 16 |
| I have received referrals from a particular alternative health care provider | 5 | 4 | 4 | 5 | 4 | 4 |
| The patient is annoying | 3 | 4 | 7 | 4 | 1 | 4 |

*P *value* $<.01$.
†P *value* $<.05$.
‡P *value* $<.001$.
NOTE: *Physicians could provide more than one response. Three respondents did not complete this section of the questionnaire.*

healers among respondents at each site. The lack of differences in referral patterns based on the practice location or sociocultural characteristics of the physicians or the patient population appears to suggest a widespread phenomenon. The 60% overall referral rate contradicts the common assumption that Western physicians discourage the use of alternative providers and that allopathic medicine exists in isolation from other healing systems. The result is similar to those found in other surveys of family physicians in Washington State,[12] central Israel,[13] and among general practitioners in Britain.[14] Cherkin et al[12] revealed that 57% of physicians surveyed admitted to encouraging their patients to see chiropractors, and that a large majority acknowledged chiropractic's effectiveness for some patients. In examining family physicians' experience with "nonmedical" treatments, Schachter et al[13] found that 42% of respondents had referred patients for alternative treatments and, as revealed in our study, that this tendency was independent of physician age, sex, and country of origin. In one study, 76% of 200 general practitioners in both rural and urban sites in Britain had referred patients to complementary techniques during the year preceding the investigation.[14]

Our study found a discrepancy between the average number of monthly and the average number of yearly referrals. Judging by referrals during the most recent month, the annual rate should have been higher. There are at least two possible explanations for this discrepancy: questionable reliability of recollection for the longer time period, or difference in the wording of the questions. (In the question about annual referrals, we requested overall rates, whereas for those during the most recent month, we solicited referral rates for each of nine categories.)

The level of physician utilization of complementary techniques was striking: nearly one fourth of the respondents reported using alternative techniques in their practices. In a survey of family physicians in Israel, Schachter et al[13] found that 17% had formal training in one or another alternative technique. In Britain and the Netherlands, the estimates of formal training in complementary medicine among general practitioners reached 40%.[14-16]

Even when taking into account the nonrespondents, our findings are consistent with these studies and demonstrate a significant level of physician crossover to unorthodox therapies.

### *The Primary Care Inclination*

This is the first research to show that, compared with other specialties, primary care is inclined toward alternative therapies. There are several hypotheses to explain why primary care physicians might be more likely to know, appreciate, refer to, and use alternative medicine. Foremost among them are differences in the physician-patient and the physician-community relationships in primary care as opposed to those of other specialties. Primary care physicians' offices are generally located in neighborhoods, affording them more intimate contact with patients. The same is true for physicians in somewhat insulated institutions. The economic and social demands of primary care practice require these physicians to be responsive to the explanatory models and cultural expectations of their patients. Since they are more independent of the hospital hierarchy, they may be freer of collegial control and better able to utilize whatever services they deem appropriate for patient care. In addition, the nature of the generalist approach does not permit the luxury of saying, "This is not in my area of expertise," as is possible in more reductionistic specialty care. Finally, the ongoing longitudinal relationship of primary care physicians with their patients may make them more acutely aware of the limitations of biomedicine in solving health problems.

This study is significantly limited by the relatively low response rate from the Washington State locale. The bias introduced by the nonrespondents cannot be fully assessed. The response rate may well be nonrepresentative because nonrespondents may have been weighted toward those who do not refer. Although the three sites provide stark sociocultural contrasts, the use of more locations or of national samples would have extended the generalizability of the conclusions. This study did not attempt to discern whether allopathic physicians *discourage* the use of alternative therapies or consider them harmful.

Taking these limitations into account, the differences and, even more so, the similarities uncovered between sites suggest a widespread phenomenon of referrals to alternative healers among allopathic medical practitioners. The continued existence of these overlapping worlds supports the need for further study. Given the high rate of referral and the absence of an apparent internal logic for such recommendations, it may be advisable to develop clinical guidelines for and physician education about the usefulness of alternative therapies as a referral option, when appropriate, within the context of traditional medicine.

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