Title

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Permalink

https://escholarship.org/uc/item/1v95h8vv

Journal

Alternative therapies in health and medicine, 9(3)

ISSN

1078-6791

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Publication Date

2003

Peer reviewed

USE OF COMPLEMENTARY AND ALTERNATIVE MEDICINE AMONG THE ETHNIC ELDERLY

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Objective • *We sought to explore whether the elderly are high users of complementary and alternative medicine (CAM), and to determine which modalities they use. We also sought to describe patterns and positive predictors of CAM use among 3 ethnically diverse groups of community-residing elderly.*

Design • *A 7-page questionnaire was developed and translated into Spanish and Vietnamese.*

Participants • *A population of 525 community-residing elderly completed personal interviews.*

Results • *Two hundred and fifty-one respondents (47.8%) reported using CAM over the past year. Dietary supplements (47.4%), chiropractic (16.3%), home remedies (15.9%), acupuncture (15.1%), and Oriental medicine (12.8%), were the most frequently cited therapies. The majority of CAM users (62.4%) did not inform their physicians that they were using it, but 58% consulted their physician for the same problem for which they used CAM. Family and friends were most relied upon for making the choice of therapy.*

Among the 3 ethnic groups studied, Asians were higher users of acupuncture (28%) and Oriental medicine (31%), Hispanics were higher users of dietary supplements (56%), home remedies (25%), and curanderos (8%), while white non-Hispanics were higher users of chiropractic (42%), massage (20%), vitamins (20%), diet (17%), and psychospiritual (15%) modalities. Pain was a higher indicator of CAM use among Asians, gastrointestinal problems and diabetes among Hispanics, and stress/fatigue and cardiovascular problems among white non-Hispanics.

Conclusion • *Findings indicated a high use of CAM among the elderly and emphasize the likelihood that elderly immigrants use those therapies with which they are familiar. Modalities and condi-*

tions varied with the ethnicity of respondents. (Altern Ther Health Med. 2003;9(3):50-57)

Complementary and alternative medicine (CAM) has always been a part of healing systems. Its roots are in the healing practices developed and applied over centuries by different ethnic groups and cultures around the world. These healing modalities reflect the cultural beliefs, practices, and products available to each group. With time, and immigration, the modalities develop and incorporate practices from other cultures and healthcare systems.

Over the past 3 decades, there has been an explosion of interest and information in CAM. In 1993, the results of a national survey sparked interest in the field, and alerted healthcare providers of the "hidden" practices of their patients.[1] In 1997, the same group updated their results, reporting use by 42.1% of the adult US population. The update reaffirmed the profile of the most likely users noted in the initial study: educated, middle-class, Caucasian, between the ages of 25 and 49.[2] Both surveys concluded that a chronic medical conditions were the major reason users turned to CAM. In 1998, Astin found that the following were positive predictors of CAM use: a) more education, b) poorer health status, c) a holistic orientation to health, and d) interest in spirituality and personal growth. In addition, he concluded that health problems such as anxiety, back problems, chronic pain, or urinary tract problems increased the chance of CAM use.[3] Wooten and Spaber presented a comprehensive summary of surveys done to date.[4]

Aging is generally associated with an increase in the prevalence of chronic disease or disability. Studies investigating the use of CAM in the United States and Europe report a higher number of chronic medical conditions among CAM users. Women, people with higher education, and those who used allopathic medicine were more commonly users of CAM. Few studies explored the use of CAM among ethnic groups, however, and those that have focus on one specific ethnic group.[5,6]

Current surveys looking at CAM use among the elderly report 30% to 58% use.[7,8] Also, several studies highlight the importance of self-treatment by the elderly.[9,10] Based on the rationale that chronic medical conditions and self-treatment are prevalent among this population, we sought to explore whether the elderly, and particularly the ethnic elderly, are higher users of CAM and whether they implement treatments on their own.

Between 1995 and 2030, the US population is estimated to grow by 32%. In the same time period, the elderly (65+) are expected to increase from 13% to 20% of the total US population, and their numbers are anticipated to double from 34 to 69 million. As in the general population, the elderly will become ethnically and culturally more diverse. It is estimated that Hispanics (10.2%) will increase to 18.9%, Asians (3.6%) to 7%, while white non-Hispanics (73.6%) will decrease to 60.5% of the total US population. Recent preliminary census data indicate a faster rate of change is anticipated in the ethnic diversity of the population.

Immigrants to the United States must adapt to a new social system. Along the way, they contribute new values and practices and adopt the prevailing cultural paradigm. However, many ethnic groups maintain some of their native identity through language, health beliefs, folk practices, and other customs. To date, very little data exist about the use of CAM by the elderly. A recent study by Astin et al focused on the use of CAM by elderly subscribers to a particular health plan.[11] Few studies have looked at the health practices, use of CAM, and the influence of ethnicity.

Self-treatment by the elderly is an important aspect of healthcare.[12] Based on prior reports (Eisenberg, Astin) of a higher number of chronic medical conditions among CAM users, we sought to explore whether the elderly are higher users of CAM, and to explore the reasons for their choices.[1-3]

Healthcare providers are often unsure of the practices and preferences of their elderly patients, particularly if they are from a different cultural background or belong to a different ethnic group. With the goal of promoting cross-cultural understanding and addressing the healthcare needs and preferences of the elderly, this study pursued the following objectives:

1. Identify the prevalence of CAM use among community-residing elderly, including the health conditions for which CAM was used and the preferred modalities;

2. Describe and compare the patterns of CAM use among 3 ethnically diverse groups of community residing elderly;

3. Identify positive predictors of CAM use among the elderly in general and among each of the ethnic groups surveyed;

4. Identify CAM modalities used by each of the 3 ethnic groups and conditions for which they were used.

METHODS

A 7-page survey instrument containing 24 questions was developed. Medical translators translated the questionnaire into Spanish and Vietnamese. Bilingual medical faculty reviewed each translation to verify the quality, legibility, and clarity of the 2 translations. Each questionnaire required 45 minutes to complete. Interviews were conducted in person, by trained bilingual interviewers in the respondent's preferred language. Respondents were volunteers. About 90% were recruited at senior centers in ethnic neighborhoods by posting an announcement of a study exploring the healthcare needs of the elderly. Thus most respondents were self-initiated inter-

TABLE 1 Demographic characteristics

Variable	Non-users (n=274)	Users Number	Users % of CAM users within each subgroup	P value*
Age				
65-69	72	68	48.6	0.259
70-74	87	88	50.3	
75-79	64	64	50.0	
80-84	32	21	39.6	
85+	19	10	34.5	
Gender				
Female	142	145	50.5	0.172
Male	132	106	44.5	
Ethnicity				
Asian	99	83	45.6	0.003†
Hispanic	70	97	58.1	
White non-Hispanic	105	71	40.3	
Education				
Grade school	106	74	41.1	<0.001
High/Trade	82	114	58.2	
school	40	53	57	
College	16	27	62.8	
Graduate				
Years in the US				
< 1 year	2	13	86.7	<0.001
1–5 years	24	38	61.3	
6–10 years	54	75	58.1	
> 10 years	78	66	45.8	
Born in the US	113	56	33.1	
Perceived health (n = 500)				
Excellent	29	16	35.5	0.512††
Very good	56	38	40.4	
Good	87	109	55.6	
Fair	70	49	41.1	
Poor	24	22	47.8	

* Unless otherwise noted, P values are based on the Cochran-Mantel-Haenszel test using Ridit scores to provide a nonparametric ordinal analysis.
†The P value is based on the Fisher exact test.
†††The Fisher exact test yielded P = .022.

views. About 10% of respondents were recruited at 2 shopping malls in ethnic neighborhoods. Interviewers sat with a poster announcing that subjects are needed for a survey by a local university about the health needs of older adults. The study group chosen was a convenience sample; information and numbers of those who did not wish to participate were not kept. All responses were kept anonymous.

Based on a power analysis, 150 participants were needed from each ethnic group for results to achieve statistical significance. Interviews were completed over a 6-month period with a total of 564 community-residing elderly. Upon review, 525 interviews were included in this analysis. Excluded interviews (39; 5.6%) were missing important demographic information (age; sex; ethnicity, etc.).

The questionnaire inquired about the health status, current medical problems, symptoms, and use of CAM. A list of the most commonly used CAM therapies, based on previous studies, was included for reference. This list was used only when respondents had difficulty naming a specific therapy, or if they were in doubt. Questions explored reasons for choice of CAM therapies, effectiveness of therapy, and whether the therapy was discussed with the subjects' primary physician. Questions about vitamins explored the number, type of vitamins used, and reason for their choice. Answers included as CAM therapy were megavitamins and multiple vitamins used in combination with other therapies to enhance or treat a health condition.

The group chosen for study was a sample of convenience. It was not intended to be representative of the national ethnic distribution. Our sample was overrepresented by Asians and Hispanics and underrepresented by white non-Hispanics because the objective was to identify the influence of ethnicity and culture on the use of CAM. The final sample included 251 users, 274 non-users, and a 2-sided alpha level of 0.05; the study has 78.9% power to detect a difference of 12% (56% vs 44%) between the 2 groups.[12] Data were analyzed using SAS statistical software.

Comparisons of CAM users and non-users were performed using the Cochran-Mantel-Haenszel test with Ridit scores for ordinal variables and the Fisher exact test for nominal variables. Logistic regression analyses were performed (using stepwise selection of variables) where each variable individually was tested as a predictor of CAM use. Subsequently, stepwise multiple regression analyses were performed where variables were admitted or rejected based on a P value of .05.

Results
Sociodemographic Variables and the Use of CAM
Respondents ranged in age from 65 to 95 years old, with an average age of 73.7 (± 6 years). Fifty-five percent were women. Two hundred and fifty-one (47.8%) reported using CAM over the past year. See Table 1 for a summary of demographics.

No statistical difference was noted among users and non-users with respect to age and gender. A statistical difference

TABLE 2 Specific CAM* modalities used

CAM modality	Users (No.)	Percent of total users
Dietary supplement	119	47.4
Chiropractic	41	16.3
Home remedy	40	15.9
Acupuncture	38	15.1
Oriental medicine	32	12.8
Massage	27	10.8
Vitamins	23	9.2
Psycho-spiritual	17	6.8
Diet	13	5.2
Curandero	8	3.2

TABLE 3 Condition for which CAM was used and percent of users within each ethnic group

Condition	Asian	Hispanic	White non-Hispanic	P value*
Pain*	42	14	37	<0.001
Health Maintenance	28	21	28	0.438
Arthritis	8	16	18	0.147
Respiratory	8	13	11	0.569
Gastrointestinal	2	21	6	<0.001
Stress / Fatigue	6	2	14	0.011
Cardiovascular	8	1	10	0.014
Diabetes	0	10	0	0.000
Headache	6	3	1	0.325
Urology	4	3	4	0.916
Insomnia	2	4	3	0.904
Neurologic	4	0	1	0.143

* Statistically significance of differences between the 3 ethnic groups calculated using the Fisher exact test.

was found in education (P < .002) and years of residence in the US. Users were slightly less educated and lived fewer years in the US than non-users.

When each ethnic group was evaluated for the above variables no statistical difference was noted for age or education. A significant difference was noted for those who had lived fewer years in the United States among Hispanic users (P < .001) and for more women users among Asians (P < .017).

Perceived Health and the Use of CAM
Among all respondents, one third perceived their health as very good or excellent, and another third as fair to poor (Table 1). No statistical difference was noted between the perceived health of CAM users and non-users (P = .387). No statistical differences were noted among users and non-users of CAM in each of the 3 ethnic groups.

TABLE 4 Insurance coverage reported by respondents

Insurance plan	Users		Non-users	
	Number	Percent	Number	Percent
Managed care	37	38.1	57	60.6
Medicare	113	53.0	100	47.0
Medicaid	18	54.5	15	45.5
Private	29	60.4	19	39.6
No insurance	59	43.0	78	57.0

Physician Contact and the Use of CAM

The number of physicians visited over the past year was also evaluated for possible correlation between users and non-users of CAM. No difference was noted among the entire elderly group ($P = .819$). Analysis within each ethnic group suggested a statistical difference among Asians ($P < .001$) and Hispanics ($P < .020$). However, Asian users visited fewer physicians, while Hispanic users visited more physicians than non-users.

Type of CAM Modalities Used

The most frequently used therapies were dietary supplements (47.4%), chiropractic (16.3%), home remedies (15.9%), acupuncture (15.1%), and Oriental medicine (12.8%) (see Table 2). Among the 3 ethnic groups studied, Asians were higher users of acupuncture (28%) and Oriental medicine (31%), Hispanics were higher users of dietary supplements (56%), home remedies (25%), and curanderos (8%), while white non-Hispanics were higher users of chiropractic (42%), massage (20%), vitamins (20%), diet (17%), and psycho-spiritual (15%) modalities.

Health Conditions Treated with CAM

Pain was the most common condition reported by users (30%), followed by arthritis, respiratory problems, and gastrointestinal problems (Table 3). Among the different health conditions reported by CAM users, pain was a higher indicator of CAM use among Asians; gastrointestinal problems and diabetes among Hispanics; and stress/fatigue and cardiovascular problems among white non-Hispanics.

Insurance Coverage and the Use of CAM

Although the elderly using CAM more frequently reported having private insurance, Medicaid, or MediCal compared with those who did not use CAM, these differences were not statistically significant (Table 4).

The survey also inquired whether insurance paid for all or part of their CAM therapy. However, upon evaluation of the results, several discrepancies were noted in answers to the question of who paid for the therapy. This question was eliminated from the survey and will be discussed later. No statistical difference was noted in the type of insurance respondents reported.

TABLE 5 Logistic regression analysis, Asian subjects

Variable	Non-users	CAM users	Single P value*	Multiple P value†
Age (years)	72.2	71.9	0.715	
% Males	65%	47%	0.017	0.011
Years in US	3.03	2.94	0.409	
>1 Year	99%	98%	0.479	
>5 Years	79%	72%	0.327	
>10 years	26%	24%	0.826	<0.001
Born in US	0%	0%	1.000	
Education score	1.70	1.75	0.656	
Perceived health	2.53	2.55	0.869	
Number physicians visited	1.58	1.00	<0.001	0.006
Managed care insurance	2%	5%	0.307	
Medicare	46%	67%	0.005	
Private insurance	4%	7%	0.353	
No insurance	29%	7%	<0.001	

* Single P values are based on logistic regression with one independent variable. †Multiple P values are based on multiple stepwise regression models containing all significant variables.

Predictors for Using CAM

Estimates of maximum likelihood for use of CAM by elderly are shorter stay in the US (OR 0.287) and absence of insurance coverage (OR 0.373).

Perceived Effectiveness of CAM and Patient-Doctor Communication

Respondents were asked to rate the effectiveness of CAM therapies on a 5-point scale, with 1 being ineffective and 5 being very effective. Among users, 6% felt it was ineffective, 5.5% indicated little effect, 26.9% noted some effect, 18.7% reported good effect, and 39% felt it was very effective.

Although 58% of users consulted their physician for the same problem for which they used CAM, only 37.6% told their physicians. Twenty percent of the physicians, who were informed about CAM use, discouraged or disapproved and 58.6% were very interested and encouraged their patients to use CAM. Among respondents who did not inform their physicians, 35% felt that they did not have the opportunity or time to inform their physicians; 20% were afraid that the physician would not approve; and 15% felt it was not necessary or appropriate.

Fifty-two percent of users relied on family or friends in making their choice of CAM therapy. Other reasons given for choosing CAM therapy were prior positive experience (17.7%), advertisement (8.4%), seminars or lectures (7.9%), and reading about the therapy (5.6%).

Initial logistic regression models suggested substantial interactions between ethnicity and other predictor variables (data not shown). Therefore, separate logistic regressions were

TABLE 6 Logistic regression analysis, Hispanic subjects

Variable	Non-Users	CAM-Users	Single P values	Multiple P values
Age (years)	74.9	73.0	.031	
% Males	27%	39%	.107	
Years in US	4.23	3.00	<.001	
>1 Year	99%	89%	.040	
>5 Years	96%	71%	<.001	
>10 years	93%	34%	<.001	<.001
Born in US	36%	6%	<.001	
Education score	1.61	1.22	<.001	
Perceived health	3.22	3.05	.330	
Number physicians visited	1.86	2.21	.027	.019
Managed care insurance	33%	6%	<.001	<.001
Medicare	50%	22%		
Private insurance	7%	16%	.080	.020
No insurance	7%	54%	<.001	.001

performed on each of the 3 ethnic subgroups. Tables 5, 6, and 7 show the results of individual and multiple logistic regression analyses performed on the Asian, Hispanic, and white non-Hispanic populations separately. In multiple regression models, note that variables may be excluded not only because they do not predict the outcome but also because they are highly correlated with another variable that predicts the outcome better. For example, in Table 7, all 5 variables indicating the number of years in the US are individually significant but only the most significant variable appears in the multiple regression analysis.

Table 5 shows the model for the Asian subgroup. Among Asians, CAM users are more likely to be female, to have seen fewer physicians, and to report that they have health insurance (usually Medicare).

For Hispanics (Table 6), CAM users are more likely to have been in the United States for less than 10 years and were likely to have seen more physicians than the other groups. In contrast with Asians and white non-Hispanics, they were far more likely to have no insurance or private insurance rather than Medicare or HMO insurance.

For white non-Hispanic subjects (Table 7), the primary variable predicting CAM use seemed to be the type of insurance. Subjects reporting Medicare were substantially more likely to be CAM users than subjects reporting no insurance. The high number of CAM non-users who reported no insurance is difficult to interpret. As 85% of respondents were born in the US and 98% of them lived in the US for more than 10 years, the assumption could be made that they are Medicare eligible.

DISCUSSION

This survey differed from those conducted by Eisenberg and others by focusing on a targeted population, namely elderly aged 65 and older. The sample is one of convenience with geographical limitations to Orange County, CA. These results may be limited in generalizability to the total US elderly population. However, the results provide a clear glimpse of the use of CAM by community-residing elderly from different ethnic groups.

Compared to surveys by Astin and colleagues[11] or Eisenberg,[2] more elderly in this survey used CAM for their healthcare (47.8% compared to 41% and 39.1% respectively). The ethnic diversity of the population studied and the limited geographical and social characteristics of southern California, with its easy availability of CAM, may explain the higher rate of use. The personal format of the interview method (conducted in respondents' preferred language and in-person) may have prompted ease and trust among respondents and facilitated frank communication with the interviewer. The higher use of CAM reported in this survey suggests that the elderly in general, and ethnic elderly in particular, are more likely to use familiar (or popular) systems of healthcare rather than the conventional methods of Western medicine.

Dietary supplements, chiropractic, acupuncture, and Oriental medicine were among the most commonly used modalities (Table 3). This finding is similar to results reported by Astin et al.[11] Home remedies, however, were used more frequently by the Orange County sample than reported by Eisenberg (15.9% vs. 4.2%). Cultural beliefs and practices, age-related desire for

TABLE 7 Logistic regression analysis, white non-Hispanic subjects

Variable	Non-Users	CAM Users	Single P values*	Multiple P values†
Age (years)	75.4	75.2	0.855	
% Males	47%	41%	0.446	
Years in US	4.81	4.72	0.286	
>1 Year	100%	100%		
>5 Years	98%	100%		
>10 years	98%	100%		
Born in US	85%	72%	0.054	
Education score	2.85	2.86	0.925	
Perceived health	3.25	3.12	0.386	
Number physicians visited	1.80	2.06	0.341	
Managed care insurance	30%	38%	0.299	<0.001
Medicare	18%	50%	<0.001	<0.001
Private insurance	10%	10%	0.941	0.006
No insurance	42%	0%	<0.001††	

* Single P values are based on logistic regression with one independent variable. †Multiple P values are based on multiple stepwise regression models containing all significant variables.
†† Logistic regression could not calculate the P value; the value was obtained from the Fisher exact test.

comfort, and preference for family traditions may be contributory factors to explain this difference.

As expected, conditions treated with CAM modalities were mostly chronic, and included pain, arthritis, respiratory problems, and gastrointestinal problems. Compared with prior studies, more elderly reported using CAM for health maintenance and disease prevention in this survey. Diseases or conditions being prevented were not discussed as often with medical doctors as with friends and family. This finding suggests efforts among the elderly to actively cope with the aging process by trying to maintain and enhance their functional level. Elderly often counsel each other about helpful products, modalities, or providers rather than turning to their primary doctor for further options to treat, prevent, or maintain their condition.

More than half of the users (57.8%) reported a positive benefit from CAM therapies. This high level of satisfaction with CAM among the elderly suggests that CAM therapies may meet their needs and beliefs. Higher vigilance is needed by healthcare providers to prevent possible interactions.

Our results reveal a lack of communication (62.4%) between users and their physicians. This result is similar to that reported in previous studies by Eisenberg et al.[1,2] It is of interest that 58% of the elderly CAM users consulted their physicians for the same medical problem they used CAM. Given the physiologic changes and the increased number of medications taken by the elderly, physicians need to be alert and inquire about their elderly patients' CAM practices while educating themselves continuously about CAM.

The decision process for choice and use of CAM modalities involved criteria similar to those used for allopathic medical care: importance of symptom interpretation and experience with lay treatment decisions.[9,13] The self-controlled use of CAM is of great concern in any age population; however, it is of more significance among the elderly because of a higher number of medical problems and physiologic changes in this age group; a higher number of medications used with a greater potential for drug-supplement interactions; and a lack of awareness of possible harm from lay treatments.[14]

A regression analysis found that recent immigration status and having less education were positive predictors of CAM use. There was no significant difference in predicting CAM use based on age, gender, self-rated health, or number of physicians visited. The findings about education status, self-rated health, and number of physicians visited are in contrast with those reported by Astin and Eisenberg. The populations studied may explain the differences.

The focus on the ethnic elderly in this study may explain the higher use of CAM therapies, and may reflect their acceptance of self-treatment. Drawing on their cultural heritage and experience, Asian and Hispanic elderly may retain their health maintenance practices and comfort with self-diagnosis and treatment. Home remedies play an important role in healthcare, and healthcare providers should be cognizant of this fact and initiate discussion about it with their patients.

The results also indicate that the elderly rely primarily on advice from laypersons and advertisements for their choice of CAM therapies. They often do not feel comfortable discussing their healthcare choices with their doctors. Thus, healthcare providers have to take the initiative, appreciating the patient's cultural heritage and beliefs, staying away from scientific jargon, and avoiding discriminatory judgments.

Ethnic Elderly

A review of the data with focus on each of the 3 ethnic groups surveyed reveals that some similarities and differences between each of the ethnic groups' practices exist.

Hispanics

Studies in several Latin American countries indicate that self-diagnosis and prescription without supervision are common practices. In addition, drugs are readily available without prescription in South America.[15] Elderly people accustomed to such liberal availability and use of drugs may continue this self-medicating practice upon immigration to the United States. Another factor is the proximity and ease of access to the Mexican borders from Southern California, and the availability of CAM products from abroad.

In 1989, a review of the use of folk medicine by elderly Mexican American women concluded that there is a dual system of healthcare (allopathic and CAM) operating in Mexican American communities, especially among the elderly. Women are usually responsible for healthcare within a family and are the most familiar with the wide variety of home remedies. The dual health system is felt to be complementary and not competitive with allopathic medicine.[16]

The Hispanic Health and Nutrition Examination Survey (HHANES 1982-1984) examined the use of CAM by 3623 Mexican Americans from the Southwestern United States. Overall only 4.2 % (n = 148) respondents between the ages of 18 to 74 years reported consulting a curandero, herbalist, or other folk medicine practitioner within the 12 months prior to the survey. Among folk healer users, only 4.7 % were 65 years of age or older. Predictors of use were male gender, less educated, and foreign-born. Acculturation was not found to be significant. Those who consulted a curandero were more apt to perceive their health as fair to poor. Regression analysis revealed that adherence to Mexican cultural orientation and dissatisfaction with medical care received were related to curandero usage.[17] In this sample, education and number of years lived in the United States were not significant indicators of use. Curanderos were consulted often (8%). This difference could point to the importance of regional and time difference in the 2 studies.

In this survey, Hispanics were higher users of CAM therapy than the other ethnic groups. A majority of Hispanic elderly (58.1%) used CAM as part of their healthcare. Dietary supplements and home remedies were the most commonly used therapies for health maintenance, arthritis, gastrointestinal

Ethnicity	Modalities	Percentage	Condition Used for	Percentage
Asian	Dietary supplement	36	Pain	23
			Health maintenance	17
			Blood pressure	13
	Oriental medicine	29	Health maintenance	21
			Pain	17
			Blood pressure	12
	Acupuncture	27	Pain	55
			Arthritis	14
			Stroke	9
Hispanic	Dietary supplement	48	Gastrointestinal	32
			Arthritis	19
			Health maintenance	15
	Home remedies	25	Respiratory	29
			Gastrointestinal	17
			Diabetes	17
	Curandero	8		
White Non-Hispanic	Chiropractic	39	Pain/Musculoskeletal	84
			Health maintenance	12
	Dietary Supplement	34	Health maintenance	42
	Massage	18	Arthritis	21
			Pain/Musculoskeletal	54
			Health maintenance	46

TABLE 8 Most common CAM modalities used by the ethnic elderly and conditions for which they were used

problems, and diabetes. Positive predictors of use were recent immigration status, higher number of physicians' visits, and the lack of insurance coverage. The difference in CAM use noted in this study and that in the Southwestern United States emphasizes the importance of geographic locations and community characteristics in peoples' behavior.[17]

Asians

Among Asians, self-medication is common. Lam et al noted that 32.5% of Chinese living in Hong Kong self-medicated.[18] Chinese tonics were used as often as Western medicines. A recent study points to the high use of emergency rooms as a primary care site among Asian elderly living in the United States. Other reports indicate that Asians, and particularly Vietnamese, distrust American physicians.[19] They may postpone consulting their physician in favor of self-treatment, including treatment with CAM.

Reluctance to talk with a physician either due to distrust of strangers, fear of getting into trouble, or fear of showing ignorance has been reported among Vietnamese refugees in California. Their healthcare behavior was noted to be a combination of several healing systems including "Western medicine." The choice usually depends on a patient's or family's tentative diagnosis, previous experience, and convenience.[20]

Among our Asian study participants, nearly half (45.6%) used CAM for their healthcare. Pain was the major reason reported, with acupuncture and Oriental medicine as the most common modalities used. Positive predictors of CAM use were female gender and fewer physicians visited. A negative predictor was the absence of insurance.

White non-Hispanics

A recent report by Astin et al provided information on elderly with a managed care insurance plan.[11] Results were similar to those found in our study when focused on white non-Hispanics. In both studies, approximately 40% of the elderly used CAM. Pain, health maintenance, arthritis, stress, and fatigue were the most common conditions identified in both studies. Modalities most commonly used were chiropractic, dietary supplements, massage, vitamins, and acupuncture. The accord between the 2 studies reinforces the validity of our results when looking at the other ethnic groups.

The modalities chosen relate to the ethnic and cultural experience of the elderly. All 3 ethnic groups commonly used dietary supplements. Differences noted were higher use of Oriental medicine and acupuncture by the Asian elderly, home remedies and curanderos by Hispanic elderly, and chiropractic and massage by white non-Hispanics (see Table 8). These differences reinforce the impact of popular health beliefs and cultural biases in each group's choice of therapies.

Lack of medical insurance was more frequently noted among Hispanic CAM users, while Asians and whites used CAM because it was covered by their medical insurance. For Hispanics, this would support prior reports that although the ethnic elderly might have higher medical needs, they have lower utilization of formal services and possibly higher self-treatment due to lack of access. This might also reflect the bias felt by the ethnic elders in services provided.

The larger interest and availability of CAM requires that healthcare providers be sensitive toward and educated in these therapies and their potential benefits or dangers. This study re-emphasizes the need for healthcare providers to initiate communication with their elderly patients and to develop interest and inquire about patients' health beliefs and practices.

This study has several limitations: a) the number of the population surveyed is small, b) limited geographical area of survey, c) self-selection bias (a higher rate of CAM users may have responded to this survey), and d) overrepresentation of the Asian and Hispanic ethnic groups. Although we had a majority of Mexican Americans among the Hispanic group, and Vietnamese among the Asians, the heterogeneity within each group cannot be ignored, and results should be interpret-

ed with caution. Our results may serve as a general guideline, but should not be applied to the entire Hispanic, Asian, or white non-Hispanic groups. These limitations notwithstanding, findings of this study add new information to the growing literature on the use of CAM in general and to the ethnic elderly population in particular. It emphasizes the need to explore further the ethnic and cultural factors influencing the choice and use of therapies.

A national study is needed to evaluate the influence of ethnicity and culture on the use of CAM. With an increase in the number of elderly, and the increasing diversity of the population, the effects of age and ethnicity on the health practices of the US population are important considerations in developing a more responsive health policy.

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