ORIGINAL RESEARCH

ETHNIC MINORITY USE OF COMPLEMENTARY AND ALTERNATIVE MEDICINE (CAM): A NATIONAL PROBABILITY SURVEY OF CAM UTILIZERS

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Context • *US research results suggest that some so cio demographic characteristics predict use of complementary and alternative medicine (CAM). Specifically, use of CAM has been positively associated with persons from higher socioeconomic status groups and negatively associated with African-Americans.*

Objective • *To investigate the sociodemographic characteristics of CAM utilizers in a national probability sample, one containing an over-sampling of ethnic minorities.*

Design • *We tested the hypothesis that CAM use is prevalent among many different ethnic groups in the US. by analyzing a subset of data from The 1995 National Comparative Survey of Minority Health Care of The Commonwealth Fund, a national probability sample of 3,789 persons with an over-sampling of ethnic minorities. The survey was conducted by telephone in 6 languages. We analyzed use of CAM (defined by 5 items: herbal medicine, acupuncture, chiropractic, traditional healer, home remedy) within the last year.*

Results • *Use of 1 or more CAM modalities did not differ by ethnicity. Overall, 43.1% of the respondents reported using 1 or more CAM modality. Predictors of CAM use were female gender, being unin-*

sured, and having a high school education or above.

Conclusion • *Use of CAM is equally prevalent among white, African-American/black, Latino, Asian, and Native American populations in the US, but characteristics of utilizers vary considerably by specific CAM modality. (Altern Ther Health Med. 2003;9(4):50-56.)*

Recent national surveys of complementary and alternative medicine (CAM) use in the US suggest that use of some form of CAM is more common among those with a higher education and income level, while use is less common among those from lower socioeconomic status groups. African Americans were least likely to report use of CAM in these surveys. The findings were based on surveys conducted only in English with sample populations not representative of the ethnically diverse US population. Therefore, they may not be representative of ethnic minority use of CAM. The aim of this study was to explore further the demographic variables associated with CAM use in the US.

There are 3 widely cited US national surveys conducted to date.[1-3] Eisenberg and colleagues 1993 study found that 34% of respondents used at least 1 CAM therapy, with highest use reported by "nonblack" persons ages 25-49. Astin's 1998 study found that 42% of respondents used some form of CAM treatment in the previous year. Use varied by ethnic group: whites=41%, Hispanics=40%, Blacks=29%. Astin concluded that high educational level, along with having a "holistic philosophy of health," is the strongest sociodemographic variable predicting CAM use. Eisenberg and colleagues 1998 study found that 42.1% of respondents reported using CAM in the previous year; CAM use was less common among African Americans (33.1%) than other racial groups (44.5%), and more common among higher socioeconomic status (SES) groups. The authors noted that this sample was predominately white, and therefore the study cannot be used to determine CAM use among ethnic minority groups. They concluded, "Parallel surveys, modified to

include therapies unique to minority populations and translated when appropriate, should be conducted using necessary sampling strategies."

Without further exploration of CAM use among ethnic minority populations, the conclusion from these studies is that CAM does not play as significant a role in the lives of most ethnic minorities, especially those in lower SES groups, as among whites. This finding is in many ways counter-intuitive and refuted by the anthropological literature on ethnomedicine.[4-5] An often overlooked characteristic of CAM modalities is that many have originated in the healing traditions of specific cultural or ethnic groups, typically from non-Western societies. In fact, these healing traditions have engendered a vast array of CAM systems. Traditional Chinese Medicine (TCM), Indian Ayurvedic medicine, herbal and shamanic healing from peoples across North and South America, Africa, Australia, and Eurasia, along with home-based folk remedies are the source of much of our current non-biomedical health care practices. This would indicate a strong connection among many ethnic minority groups in the US and the use of CAM. Therefore, our aim was to determine which of seven demographic variables—ethnicity, gender, age, education, income, insurance status, being foreign born—were associated with the use of CAM in a national probability sample containing a substantial number of ethnic minorities.

METHODS
Analysis of Commonwealth Fund Survey Research Data

To address our study's goal, we analyzed the National Comparative Minority Health Care Survey, a pre-existing data set made available to us by The Commonwealth Fund. This data set is particularly suitable for several reasons. One, it is a national probability sample of households with telephones. Two, it contains an over-sampling of minorities which permits accurate ethnic population estimates, and sufficient power to assess response differences among subgroups. And finally, the survey is comprehensive. In addition to 5 questions pertaining to CAM use, it also contains characterizing information on education, income, insurance status, place of birth, and ethnicity.

Description of the Instrument

The 25-minute survey instrument was developed, validated, and administered over the telephone by Louis Harris and Associates, Inc. between May 13, 1994 and July 28, 1994. The survey questionnaire contains approximately 200 short fill-ins, yes/no, Likert scaled, and multiple choice questions. It contains 7 sections covering source of care, communication and relationship with physicians, utilization of care, access to care, perceived discrimination in the healthcare system, type of health insurance coverage, health status and disabilities, mental health and well being, violence, and demographics. The survey was conducted in 6 languages: English, Spanish, Mandarin, Cantonese, Korean and Vietnamese.

Sampling Methodology

The sample is representative of persons in households with telephones in urban, suburban, and rural areas in the 48 contiguous states. Survey respondents were randomly selected by a 3-stage, stratified random sampling strategy. In stage 1 each state was divided into counties or portions of counties (ie, primary sampling units (PSU's)) which were subsequently categorized into urban, suburban and rural designations for a total of 144 strata (3 x 48). The number of households selected from each stratum was in proportion to its population in the total US population. The probability of a PSU to be randomly selected within each stratum was proportional to the PSU's population in the stratum. During stage 2, for each randomly selected PSU, 80 groups (or telephone banks) of 100 telephone numbers were generated. In stage 3, 10 banks were randomly selected from the 80 telephone banks generated in the previous step, and 1 telephone number from each bank was chosen to be dialed for the interview.

Over-sampling of African Americans and Latinos was obtained by screening additional cross-sections and interviewing only members of these groups until satisfactory sample sizes were achieved. Asian Americans were randomly selected from list samples provided by Survey Sampling, Inc., which included typically Asian surnames listed in telephone directories. The ethnicity of respondents was confirmed in the telephone interview. Filipino persons were not over-sampled because of the difficulty in identifying them based on their surnames. Japanese persons were not over-sampled in the survey due to the belief that their healthcare access closely mirrors the majority population.

Data Analysis

We limited our analysis to the socio-demographics section of the instrument and the 5 questions pertinent to CAM use, as follows. "Have you in the past 12 months: used herbal medicine? Used acupuncture? Gone to a chiropractor? Gone to a traditional healer? Used home remedies?" Our specific research question was, "Which of the demographic variables (ethnicity, gender, education, income, insurance status, and being foreign born) are associated with use of the 5 CAM modalities included in this survey?"

Cross-tabulations, chi-squares, and logistic regression (using maximum likelihood estimates for the standardized slope parameters, their respective Wald chi-square test of statistical significance, odds ratios, and 95% confidence intervals) were used. Cross-tabulations and chi-square tests were used to compare the socio-demographic characteristics of the respondents, and to compare the prevalence of use of each CAM modality. Logistic regression was used to assess the significance of each background variable in explaining the likelihood of each type of CAM use, after controlling for all other background variables. All analyses were computed using the Statistical Analysis System (SAS 6.12) software package

Because of the paucity of Native American respondents, this group was omitted from the logistic regression analysis

TABLE 1 Ethnic Composition of Subgroups (n= 3452)					
Program	**White**	**Black/AA**	**Latino**	**Asian**	**Native Americans**
TOTAL	1114 (32%)	1048 (31%)	581(17%)	632(18%)	77 (2%)
	1114(100%)	1005(96%)	0(0%)	626(99%)	19(25%)
HISPANIC	0(0%)	43(4%)	581(100%)	6(1%)	58(75%)
No					
Yes					
TYPE*	0	10(.9%)	294(51%)	0	37(48%)
Mexican	0	13(1.2%)	80(14%)	0	6(8%)
PuertoRico	0	1(.1%)	40(7%)	0	0(0%)
Cuban	0	3(.3%)	5 (1%)	0	1(1%)
Dominican	0	1(.1%)		0	0(0%)
Not Sure	0	2(.2%)	23 (4%)	0	2(3%)
Other	0	13(1.2%)	135(23%)	0	12(15%)
CARIBBEAN*					
Yes	0	104(10%)	0 (0%)	0 (0%)	0 (0%)
No	1114(100%)	944(90%)	581(100%)	632(100%)	77(100%)
ASIAN*					
Chinese	0	0	0	205(32%)	0(0%)
Vietnamese	0	0	0	201(32%)	0(0%)
Korean	0	0	0	201(32%)	0(0%)
Not Sure	0	0	0	3(.5%)	0(0%)
Other	0	0	0	22(3%)	0(0%)
*Country of origin					

only. The sample sizes for the remaining ethnic groups provided accurate prevalence parameters and power (.80) to detect meaningful differences in use of CAM with a statistical significance of .05.

RESULTS

Our major findings were:

1) all ethnic groups were equally likely to use at least one CAM modality;

2) likelihood of use of at least 1 CAM modality was associated with being female, being uninsured, and having an educational level of completion of high school and above;

3) CAM practices must be considered separately to arrive at an accurate picture of ethnic minority CAM use; in other words, ethnicity is related to use of certain modalities (eg, Asian and Native Americans are most likely to report use of herbal medicine while whites are most likely to report use of chiropractic.)

Characteristics of Respondents (Table 1)

The overall response rate was 60%. The national cross-sectional sample was 32% white (n=1,114), 31% Black/African American (n=1,048), 17% Latino (n=581), 18% Asian American (n=632), and 2% Native American *(n=77).* Ten percent of the Black/African Americans in the sample reported being Caribbean. The majority of those in the Latino group identified themselves as Mexican or Mexican American (51%); 14% were Puerto Rican, 9% reported being Cuban, Dominican, or Costa Rican; 27% listed "not sure" or "other" for their specific heritage. The Asian American population consisted of equal groups of Chinese (32%), Vietnamese (32%) and Koreans (32%); 3.5% listed "other" or "not sure" for their specific heritage. Seventy-five percent of the Native Americans (n=58) also reported being of Hispanic origin.

Gender distribution was 51% male and 49% female (Table 2). The age distribution was: 21% between 18-29 years, 39% were 30-44, 28% were 45-64, and 12% were 64+ years of age. Annual income distribution ranged from less than $7,500 to more than $100,000. Education levels were: 16% had less than a high school diploma, 29% were high school graduates, 26% had some college, 19% were college graduates, and 9% had postgraduate degrees.

To ensure that the sampling strategy was nationally representative, the population distribution of gender, age, educational attainment, employment status, marital status, race, ethnicity, and income (weighted and unweighted) were compared to the March 1994 Current Population Survey results. The survey's results were within 2 percentage points of the 1994 population survey.

Patterns of Use

Overall, 43.1% of respondents in this survey reported using 1 or more CAM modalities (defined by the 5 items listed above)

TABLE 3 Prevalence of Specific CAM Use Within Each Ethnic Subgroup						
	Overall	White	Black/AA	Latino	Asian AmericanAmer	Native American
Herbal med	19%	12%	19%	23%	26%	29%
Acupuncture	3%	1%	1%	1%	12%	3%
Chiropractic	8%	13%	5%	9%	5%	9%
Traditional Healer	3%	3%	2%	3%	4%	7%
Home remedy	29%	31%	35%	32%	14%	37%

in the last year. This finding supports earlier results that showed 40%[2] and 42.1%[3] of persons in the US using CAM. Defining "use of CAM" as use of one or more of the 5 CAM modalities listed in the survey, respondents from all ethnic groups used CAM similarly, as follows: white 43.5%, African American 42.6%, Latino 40.7%, Asian American 39% and Native American 39.6%. These differences were not statistically significant. Use of at least 1 CAM modality was related to gender, educational level and insurance status, but not to ethnicity, income, age or being foreign born. However, when ethnicity and use of CAM were analyzed by each of the 5 modalities included in the survey, we found statistically significant differences (Table 3).

Logistic Regression Analyse (Table 4)

Logistic regression analyses for each modality confirmed that the use of these CAM modalities differed by ethnic group, even after controlling for background differences. (The numbers in parentheses, below, refer to odds ratios.)

Use of 1 CAM

Likelihood of the use of at least 1 CAM modality was associated with being female (1.29), being uninsured (1.52), and having a higher educational level (high school and above, compared to no high school) (1.27-1.50). In general, age was not related to CAM use in this sample. The one notable exception was that older (65+) Asian Americans were more likely to report use of acupuncture than younger Asian Americans.

Herbal Medicine

African Americans were more than 1.5 times more likely to report using herbs than whites (1.67). Latinos were more than twice as likely (2.18) and Asian Americans were almost 3 times (2.75) as likely to report the use of herbs when compared to whites. Women were 1.46 times as likely to report using herbs as men. Those without insurance were 1.56 times as likely to report the use of herbs than those who were insured. High school graduates were 1.45 times more likely to report using herbs than those who did not graduate from high

school. Use of herbs was not related to income, age, or being foreign born.

Acupuncture

Asian Americans were more than 12.84 times as likely to report using acupuncture as whites; the uninsured were almost twice as likely (1.90) to report using acupuncture as the insured.

Chiropractic

Whites were more likely to use chiropractic than African Americans (.41), Latinos (.64), or Asian Americans (.38). Those with annual incomes over $25,000 were more likely to report using chiropractic than those with annual incomes of $25,000 or less (1.51-1.49).

Traditional Healer

Persons with college (2.91) and graduate (2.97) degrees were more likely to report visiting a traditional healer than those with less education.

Home Remedy

African Americans were more likely (1.24) than whites to report use of home remedies; Asian Americans were less likely (.50) to report using home remedies than whites. Women were more likely to report using home remedies than men (1.22), and the uninsured were more likely to report using home remedies than those who were insured (1.41). Those born in the US had a greater likelihood of reporting use of home remedies than those born elsewhere (1.46).

DISCUSSION

We determined that CAM use, when defined as use of at least 1 CAM modality, is widespread among diverse ethnic groups, broad age ranges, and many economic levels. However, use of specific modalities differs by ethnic and other demographic variables. This survey, 1 of the first to assess accurately the differences across ethnic groups, contains vital information on other demographics that potentially influence CAM use.

Conducting Culturally Competent Survey Research in the US

This study confirms once again the necessity of conducting research in a culturally competent manner. At a minimum, national survey research must over-sample ethnic minorities, administer surveys in multiple languages (eg, Spanish, Korean, Cantonese, etc), and test the survey instruments for construct validity (ie, ensure that the survey questions are worded in a culturally appropriate way). It is simply not possible to get an accurate picture of the US population while ignoring culture and ethnicity. Eisenberg and colleagues selected survey sample consisted of telephone interviews with 1,539 English speaking adults (67% response rate). Their sample was 82% white.[3] Astin's mail survey of a selected population was conducted through National Family Opinion, Inc., in which 1,035 persons completed the written English language survey (69% response rate). The author declined to report on Asian or Native American groups due to small sample sizes. This sample was

TABLE 2 Background Characteristics of the Ethnic Sub-samples

	Overall		White		Black/AA		Latino		Asian		Native Americans	
	n	%	n	%	n	%	n	%	n	%	n	%
TOTAL	3452	(100%)	1114	(32%)	1048	(31%)	**581**	(17%)	632	(18%)	77	(2%)
Gender*												
Male	1768	(51%)	589	(53%)	527	(50%)	286	(49%)	316	(50%)	50	(65%)
Female	1684	(49%)	525	(47%)	521	(50%)	295	(51%	316	(50%)	27	(35%)
Education*												
<HS Grad	540	(16%)	114	(10%)	187	(18%)	**106**	(18%)	113	(19%)	20	(26%)
HS Grad	998	(29%)	365	(33%)	327	(31%)	**158**	(27%)	129	(21%)	19	(25%
Some Col.	871	(26%)	288	(26%)	286	(27%)	**176**	(31%)	93	(15%)	28	(36%)
Col Grad	658	(19%)	222	(20%)	142	(14%)	**97**	(17%)	189	(31%)	8	(10%)
Post Grad	343	(10%)	122	(11%)	102	(10%)	**40**	(7%)	77	(13%)	2	(3%)
Income*												
<7500	349	(11%)	86	(8%)	141	(14%)	**57**	(10%)	57	(11%)	8	(11%)
7501-15000	378	(12%)	109	(11%)	129	(13%)	**66**	(13%)	65	(13%)	9	(12%)
15001-25000	564	(18%)	170	(16%)	202	(21%)	**113**	(21%)	61	(12%)	18	(25%)
25001-35000	595	(20%)	75	(18%)	162	(17%)	**99**	(18%)	98	(19%)	12	(16%)
35001-50000	546	(17%)	207	(50%)	165	(17%)	**99**	(18%)	112	(22%)	12	(16%)
50001-75000	387	(12%)	146	(14%)	99	(10%)	**66**	(12%)	65	(13%)	11	(15%)
75+	320	(10%)	141	(14%)	77	(8%)	**44**	(8%)	55	(11%)	3	(4%)
Insurance§												
0.No	409	(12%)	67	(6%)	103	(10%)	**96**	(17%)	130	(21%)	13	(17%)
1.Yes	3043	(88%)	1047	(95%)	945	(90%)	**485**	(83%	502	(79%)	64	(83%)
Age(m=44)‖												
18-29	651	(19%)	150	(13%)	191	(18%)	**120**	(21%)	166	(27%)	24	(31%)
30-44	1316	(38%)	361	(33%)	401	(39%)	250	(43%)	270	(44%)	34	(44%)
45-64	984	(29%)	352	(32%)	302	(29%)	**164**	(28%)	150	(24%)	16	(21%)
65+	472	(14%)	246	(22%)	147	(14%)	**43**	(8%)	33	(5%)	3	(4%)
Born in USA[1]												
0.No	905	(26%)	41	(4%)	95	(9%)	**181**	(31%)	576	(93%)	12	(16%)
1.Yes	536	(74%)	1073	(96%)	953	(91%)	**400**	(67%)	45	(7%)	65	(84%)

*Gender, Race X^2= 8.68 df= 4; p=.07 Education, Race X^2=174.11; ddf=16; p=.001 [f] Income, Race X^2= 76.9 df=24 p=.001; §Insurance, Race X^2= 100.45; df=1 p=.001; ‖Age*Race X^2= 183.84; df=12;p=.001;« Born in USA, Race X^2= 1881.10, df=4, p=.001.

79.5% white.[2] In contrast, the sample we used was 32% white, and the survey was conducted in multiple languages (English, Spanish, Mandarin, Cantonese, Vietnamese and Korean).

What is Complementary and Alternative Medicine?

Our findings show that considering CAM modalities (eg, herbal medicine and chiropractic) separately produces very different results regarding the demographic characteristics of utilizers than using a single "CAM" category. Therefore, aggregating findings on the use of specific modalities into one "CAM use" result may obscure, rather than clarify, our understanding of CAM use in the US today. One dimension of the controversy regarding who is using CAM originates in the definition of the "complementary and alternative medicine" category itself. CAM is not one system, nor is it even 2 or 3 systems, but rather myriad approaches to health and healthcare drawn from multiple cultures, traditions, and eras. In fact, the official National Institutes of Health (NIH) definition of CAM is derived from what CAM is not—the "everything-but-biomedicine" definition—which reads, "those treatments and healthcare practices not taught widely in medical schools, not generally used in hospitals, and not usually reimbursed by medical insurance companies" (NIH-NCCAM website). Such a broad and changeable definition is necessary for discourse, yet may not be suitable as a research category.

The Struggle to Define the Typical CAM Utilizer

As recently as the 1970s, cultural observers associated the use of "folk medicine" with lower income, less educated groups, as well as ethnic and religious minorities.[6] Many believed that

	Herbs	Acupuncture	Chiropractic	Traditional Healer	Home Remedies	At Least 1
Race						
White						
African American	1.67[1.29-2.15]	1.44[.57-3.62]	.41 [.29- .57]	.74 [.39-1.38]	1.24 [1.02-1.50]	1.04 [.87-1.25]
Latino	2.18[1.63-2.92]	.86[.25-3.00]	.64 [.44- .92]	1.39 [.72-2.69]	1.20 [.95-1.52]	.96 [.76-1.21]
Asian	2.75[1.87-4.06]	12.84[4.29-38.44]	.38 [.21- .67]	1.94 [.81-4.67]	.50 [.34- .73]	.95 [.69-1.30]
Gender						
Male						
Female	1.46 [1.21-1.77]	1.30[.81-2.09]	1.21 [.93-1.56]	1.07 [.68-1.67]	1.22 [1.04-1.43]	1.29[1.10-1.49]
Education						
<HS Grad						
HS Grad	1.45 [1.06-1.97]	1.90 [.85-4.23]	1.47 [.79-1.58]	1.63 [.66-3.99]	1.02 [.79-1.31]	1.27[1.00-1.61]
College Grad	1.41 [.98-2.03]	[.97-5.45]	1.42 [.84-2.39]	2.91 [1.12-7.55]	1.17 [.86-1.58]	1.43[1.08-1.90]
Post Grad	1.51 [.99-2.30]	2.47 [.89-6.83]	1.09 [.58-2.02]	2.97 [1.04-8.48]	1.25 [.88-1.78]	1.50[1.08-2.09]
Income						
7500-25,000						
25,001--50000	1.07 [.85-1.34]	.81 [.46-1.43]	1.51 [1.10-2.06]	.85 [.48-1.49]	.99 [.82-1.21]	1.02 [85-1.23]
50000+	.92 [.69-1.23]	.53 [.25-1.13]	1.49 [1.02-2.18]	.88 [.46-1.68]	.81 [.64-1.03]	.83 [.67-1.04]
Age(m=44)						
18-30						
31-59	1.24 [.97-1.57]	1.73 [.93-3.20]	.90 [.65-1.24]	1.45 [.80-2.62]	1.11 [.91-1.37]	1.02 [.84-1.23]
60+	1.11 [.80-1.54]	1.68 [.68-4.13]	1.24 [.83-1.85]	.78 [.32-1.90]	1.03 [.79-1.34]	1.04 [.81-1.33]
Insurance						
Insured						
No Insurance	1.56 [1.17-2.07]	1.90 [1.04-3.45]	1.31 [.85-2.01]	.98 [.47-2.06]	1.41 [1.09-1.84]	1.52[1.19-1.95]
Born						
Not **US Born**						
US Born	1.04 [.78-1.41]	.79 [.33-1.90]	.96 [.62-1.49]	1.16 [.56-2.42]	1.46 [1.11-1.92]	1.19[.92-1.53]

the use of alternative healing systems would die out as people became better educated and as biomedicine became more accessible to historically disenfranchised groups.[7] However, in the 1980s, as 'holistic medicine' began to enter the mainstream it became associated with higher income, better educated groups and with whites.[8] In 1993 the *New England Journal of Medicine* published Eisenberg and colleague's, landmark article which stated that CAM use was most prevalent among "nonblack" persons ages 25-49. This was followed in 1998 by Astin'sJAMA article which cited high educational level as the strongest socio-demographic variable predicting CAM use, and described typical CAM users as being "cultural creatives." However, the findings of our study show that use of CAM in some form is prevalent among all ethnic groups, and as such is probably an important component of delivering culturally competent care

Limitations

The main limitation of this study is that the data we used in our analysis are 10 years old (from a survey conducted in 1994).

Also, we were limited by having to define CAM on the basis of the 5 questions contained in the survey: herbal medicine, acupuncture, chiropractic, traditional healer, and home remedies. Obviously, CAM is a much larger category that includes a wide variety of modalities, as noted throughout. There were no questions pertaining to religious or spiritual healing, folk remedies, massage, special diets, etc. Native Americans were not over-sampled and were omitted from the logistic regression because of the small sample size. Neither Japanese nor Filipino persons were included in the Asian American group. Persons without telephones were excluded from the sample, which could bias the results.

The terms "traditional healer" and "home remedy" are somewhat vague and open to interpretation. Furthermore, "traditional healer" is a term often heard in academic circles, but is less common elsewhere. This may explain the counterintuitive finding that persons with more education were more likely to report going to a traditional healer than those with less education. The results might have been different had the survey

included questions about visits to a curandero,[9] medicine man,[10] or root-worker.[11] Although the term "home remedies" could have multiple meanings, the literature clearly associates the term with African American culture.[12] In general, the social sciences, nursing, and medical literature link the term "home remedy" with: folk medicine, folk illnesses, specific cultural belief systems, specific ethnic groups, ethnomedicine, women's healing systems, family remedies, and CAM.[13]-[17]

Implications for Understanding Cultural Competence

The US is both a culturally and a *medically* pluralistic society.[4],[6],[18] Because medicine is a cultural construct (ie, different cultures produce different kinds of healthcare), any country with multiple cultural influences will have a variety of approaches to health and healing. Biomedicine is 1 approach to health and healing that emerged from scientific explorations in Europe (and previously the Middle East) over the past millenium. It has proven to be a very powerful system and its successes have helped the biomedical paradigm to expand across the globe. However, not everyone (even in the US) fully embraces the biomedical model and many choose to use healthcare modalities based on other belief systems (eg, homeopathy, Traditional Chinese Medicine, Ayurveda, shamanism, etc.) either alone or in combination with biomedicine. This diversity in health belief systems is not unlike the cultural diversity evident in the US today. With regard to the design of culturally competent systems of care, we must consider the diversity of health belief systems and practices espoused by contemporary Americans, especially those associated with a particular ethnic group. As health professionals and health researchers, we should ask ourselves: 'how well do the health systems we have created "fit" the persons we wish to serve?' We have begun to address this in the area of linguistic competence by acknowledging that healthcare systems must deliver care in the language of the client population. However, much of the discussion to date on health belief systems has focused on ways to convince or coerce patients to adhere to the biomedical paradigm. What if we were to acknowledge and integrate some aspects of other belief systems into the biomedical paradigm? Would this approach better serve a culturally diverse population?[19] Medical pluralism is a reality in our culturally diverse society; a truly culturally competent healthcare system will acknowledge this plurality.

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