

Race/Ethnicity and Women's Use of Complementary and Alternative Medicine in the United States: Results of a National Survey

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Since the early 1990s, Americans' use of treatments outside the realm of conventional medicine has been well documented by national surveys and explored in various contexts and from several perspectives.^{1–5} Persistent gaps in our knowledge need to be addressed, however, particularly with regard to the use of complementary and alternative medicine (CAM) among women of color. Previous studies have indicated greater use of CAM among Whites and women but were limited in their capacity to assess racial/ethnic differences in CAM use.^{2,4,6} A notable exception is an analysis of the 1999 National Health Interview Survey, which included sufficient non-Whites to differentiate rates of CAM use among minorities.⁶ This study used broad racial categories and categorized CAM modalities into 5 large groupings, obscuring important differences in specific CAM use between racial/ethnic subgroups.⁶

A CAM supplement to the National Health Interview Survey included more-specific CAM categories and a sample of 31 044 women, which enabled a more detailed analysis across Blacks, Whites, Hispanics, and Asians.⁷ Other studies have examined racial/ethnic differences in women's CAM use but have focused on specific disease conditions⁸ or life cycle stages,⁹ or were regional^{10,11} and limited in generalizability.

Women are the primary consumers of health care services in the United States, both conventional^{12,13} and CAM.^{2,3} Therefore, more detailed information about women's use of CAM is needed. As the US population becomes more diverse, understanding racial/ethnic patterns of CAM use will enable assessments of the appropriateness of policies and programs and will inform and sensitize health care providers to the beliefs and practices of their patients. Additionally, if CAM use is found to be a resource with positive health

effects, then access to CAM services should not be limited by race or ethnicity.

Our study extended prior work by examining patterns of CAM use among women in 4 racial/ethnic groups: non-Hispanic Whites, African Americans, Mexican Americans, and Chinese Americans. On the basis of national data, we assessed differences in the use of CAM overall, of CAM practitioners, of specific CAM domains, and the most common health conditions for which CAM was used.

METHODS

Study Design

A cross-sectional telephone survey of women aged 18 years and older living in the United States provided nationally representative data on women's use of CAM within the year before the summer of 2001, as well as on women in 3 minority groups. We examined women who self-identified as non-Hispanic White, African American, Mexican American, and Chinese American. The latter

Objectives. We studied the use of complementary and alternative medicine (CAM) among women in 4 racial/ethnic groups: non-Hispanic Whites, African Americans, Mexican Americans, and Chinese Americans.

Methods. We obtained a nationally representative sample of women aged 18 years and older living in the United States in 2001. Oversampling obtained 800 interviews in each group, resulting in a sample of 3068 women.

Results. Between one third and one half of the members of all groups reported using at least 1 CAM modality in the year preceding the survey. In bivariate analyses, overall CAM use among Whites surpassed that of other groups; however, when CAM use was adjusted for socioeconomic factors, use by Whites and Mexican Americans were equivalent. Despite the socioeconomic disadvantage of African American women, socioeconomic factors did not account for differences in CAM use between Whites and African Americans.

Conclusions. CAM use among racial/ethnic groups is complex and nuanced. Patterns of CAM use domains differ among groups, and multivariate models of CAM use indicate that ethnicity plays an independent role in the use of CAM modalities, the use of CAM practitioners, and the health problems for which CAM is used. (*Am J Public Health.* 2006;96:1236–1242. doi:10.2105/AJPH.2004.047688)

2 groups were targeted because they are the largest Latino and Asian populations living in the United States. Interviews were conducted in English, Spanish, Mandarin, and Cantonese.

Sample

Sampling and computer-assisted telephone interviews were conducted by a nationally recognized survey research firm. They used the GENESYS random-digit dialing sampling system (GENESYS Telecommunications Laboratories, Daly City, Calif) to generate a nationally representative sample of telephone households with English-speaking women residing in the continental United States. The subsample of non-Hispanic White women was derived from the random-digit dialing sample.

African American and Mexican American samples were generated with the common procedure of geotargeting,^{14–16} which entailed oversampling from census tracts with at least 40% incidence of these groups. In the United

States, 66% of African Americans and 73% of Mexican Americans live in such neighborhoods. Our sample was therefore representative of the majority, but not the full population, of these groups in the United States. Low incidence and minimal geographic clustering of the Chinese population in the United States necessitated generating a sample from a commercial database of Chinese surnames, representing 75% of the US Census estimate of Chinese households.

The unweighted subsamples consisted of 812 African American, 811 Mexican American, and 804 Chinese American women as well as 641 non-Hispanic White women from the random-digit-dialed sample. The refusal rates for the subsamples were 21% (random-digit dialing), 26% (African American), 31% (Mexican American), and 27% (Chinese American). One woman per household was interviewed; if there was more than 1 eligible respondent in a household, the woman with the most recent birthday was interviewed. Data were weighted to correct for the probability of selection in households with more than 1 eligible woman.

Instrument Development

Pilot work for this study included a survey in New York City¹⁰ and focus groups¹⁷ that identified important health concerns and conditions of women, as well as the CAM modalities that they used or recognized. Instrument development included translation by professional consultants, back-translation by bilingual members of investigators at Columbia University, and extensive pretesting for the Spanish and Chinese instruments. Discrepancies were reviewed by a group of translators, study investigators, and bilingual research assistants.

Interviewer Training and Interviewing

Field supervisors conducted interviewer training with investigator input by teleconferencing. Before data collection, interviewers conducted practice interviews while bilingual Columbia staff “listened in.” From April to September 2001, subgroups were interviewed consecutively, starting with the random-digit-dialed sample and followed by the African American, Mexican American, and Chinese American subgroups.

Measures

CAM use. CAM use in the previous year was measured in 4 ways. A summary measure indicating respondents’ use of any of 11 CAM domains for health reasons (Chinese American women were asked about 10 domains) included vitamins and nutritional supplements (excluding daily multiple vitamins, or “standard” doses of vitamins A, B, C, E, or calcium); a special diet such as whole foods, macrobiotic or other vegetarian diet (excluding diets to lose weight such as Weight Watchers or Jenny Craig); medicinal herbs or teas; remedies or practices associated with a particular culture such as Chinese medicine, Ayurveda, Native American healing, curanderismo; homeopathic remedies; yoga/meditation/tai chi; chiropractic treatments; manual therapies such as massage or acupressure; energy therapies such as Reiki or therapeutic touch; acupuncture; or any other remedy or treatment not typically prescribed by a medical doctor. We asked about use of religion or spirituality for health reasons and report overall CAM use with and without this included; however we *excluded* this category from our multivariable analyses of CAM.

Pretesting for the Chinese American subsample indicated that “energy therapies,” “remedies associated with a particular culture,” and “homeopathic remedies” were not meaningful to Chinese American respondents. With input from health care providers who worked with Chinese populations and were native speakers of Mandarin and Cantonese, we substituted categories known to be used by this group: prescription traditional Chinese medicines (Chinese medicinal decoctions or broths) and nonprescription traditional Chinese herbs/medicines (prepackaged or proprietary herbal formulas sold in Chinese drugstores). Of the 10 CAM domains included in the Chinese questionnaire, 8 were comparable to those asked in all versions of the instrument and 2 were unique to the Chinese version.

Additional measures of CAM use in the past year included specific CAM domains compared across the racial/ethnic samples and whether women had seen a CAM practitioner during the past year, including visits to a massage therapist, acupuncturist, chiropractor,

energy therapist, naturopath, herbalist, or homeopath.

The final measure of CAM use was specific to health conditions identified by Latina and African American women in focus groups.¹⁷ Women were asked whether in the past year they had experienced a variety of gender-specific health conditions (urinary tract/vaginal infections, uterine fibroids, pregnancy-related conditions, menstrual symptoms, menopausal symptoms) and non-gender-specific health conditions (back pain, joint pain/arthritis, headaches, insomnia, high cholesterol, high blood pressure, depression [medically diagnosed], osteoporosis, heart disease, cancer). For each condition experienced, CAM users were asked whether they had used CAM to treat the condition.

Independent measures. The primary independent variable was race/ethnicity. On the basis of self-reported data, we created 4 dichotomous variables (non-Hispanic White, African American, Mexican American, Chinese American) that served as referent groups for analyses involving multiple comparisons. Other variables included age, educational attainment (less than high school, high school, more than high school), current employment status, any public assistance in the past 5 years, household income, birthplace, any health insurance, self-assessed health status (poor, fair, good, excellent), and whether the respondent had seen a doctor in the past year.

Analysis

Analyses were performed with data weighted for the probability of selections using SPSS version 11.0.¹⁸ In bivariate analyses of racial/ethnic differences, χ^2 tests (for categorical variables) and 1-way analysis of variance (for continuous variables) were used. Logistic regression was used in multivariable analyses because all dependent variables were dichotomous.

RESULTS

Sample Description

Sociodemographic and health status factors are presented in Table 1. Most Chinese American (97%) and Mexican American (66%) respondents were immigrants, the majority of

TABLE 1—Sociodemographic and Health Characteristics of Sample, by Racial/Ethnic Group: United States, 2001

	Non-Hispanic Whites (n = 757)	African Americans (n = 1081)	Mexican Americans (n = 1057)	Chinese Americans (n = 1026)
Sociodemographic variables, %				
Age, y*				
18–29	18.1	29.6	41.5	16.4
30–49	37.8	41.2	41.7	50.2
≥ 50	44.0	29.2	16.7	33.4
Level of education completed*				
Less than high school	9.7	16.2	50.6	16.4
Completed high school	34.0	34.2	27.2	21.3
2 y or some college	30.3	31.7	15.7	9.1
College graduate or more	26.1	17.9	6.5	53.2
Currently employed*	57.2	65.7	46.0	58.9
Received public assistance in past 5 y*	7.1	19.6	16.2	3.6
Household income in 2000*				
< \$20 000	19.9	27.2	42.7	16.2
\$20 000–\$60 000	48.4	55.5	48.5	49.2
> \$60 000	31.7	17.2	8.8	34.6
Born in United States*	95.8	94.5	34.3	2.7
Interviewed in English*	100.0	100.0	31.3	8.7
Any health insurance*	85.6	84.9	61.6	73.2
Health variables, %				
Self-assessed health status**				
Excellent	29.2	16.9	18.5	19.4
Good	49.7	55.6	39.3	47.5
Fair/poor	21.1	27.5	42.2	33.1
Saw physician for health concern in past year**	66.4	59.1	40.7	52.7

Note. The subsamples were weighted to account for selection probability in households with more than 1 eligible woman.
* $P < .01$; ** $P < .001$ for between-group differences, based on χ^2 tests.

whom chose to be interviewed in their native language (91% and 69%, respectively). Chinese American women surpassed non-Hispanic Whites on educational attainment and were comparable to them on income, although 57% of the Chinese American subsample did not provide income information. Mexican American women were the least likely to have completed high school, to be employed, or to have health insurance, and most likely to have household income less than \$20 000. African American women had the highest rate of employment (66%) and were as likely as non-Hispanic Whites to have health insurance (85%). However, African Americans, like Mexican Americans, were relatively likely (20%) to have received public assistance in the past

several years and relatively unlikely (17%) to have household income of more than \$60 000.

Except for Mexican American women, the modal perceived health status was “good,” chosen by approximately half the women of other race/ethnicities (Table 1). Headaches, back pain, and joint pain were the 3 most common non–gender-specific health conditions experienced by women in each racial/ethnic subgroup (data not shown). Health care utilization differed among the groups. Consistent with rates of insurance coverage, non-Hispanic Whites (66%) and African Americans (59%) were more likely to visit a doctor for a health concern over the past year than were Chinese American or Mexican American women.

CAM Use Across Racial/Ethnic Groups

Overall CAM use in the past year was relatively high in all groups, with the highest use among non-Hispanic White women (52%) and lowest use among Mexican American women (36%) (Table 2). Few CAM domains were used by more than 10% of minority women. CAM domains used by more than 10% of non-Hispanic White women included vitamins, medicinal herbs/teas, chiropractic, yoga/meditation/tai chi, and manual therapies. For the “medicinal herbs and teas” domain, Mexican American women reported the most use—18% compared with 17% for non-Hispanic Whites, 14% for African Americans, and 12% for Chinese women (Chinese women had 2 additional domains in which they could report the use of medicinal herbs in the context of traditional Chinese medicine).

Non-Hispanic White women were also most likely to have used CAM *and* visited a medical doctor (37%), whereas Mexican American and Chinese American women were most likely to have used neither form of care (43% and 31%, respectively) (Table 2). African American women were most likely to have seen a doctor, but not to have used CAM (32%). Of women who used *only* conventional medicine *or only* CAM, seeing a doctor was more common than using CAM for all 4 groups.

When we adjusted for sociodemographic and health factors, overall CAM use was not consistently higher among non-Hispanic Whites than among women of minority groups. African American and Chinese American women (adjusted odds ratio [AOR]=0.61 and 0.72, respectively) were significantly less likely to use CAM in the past year than non-Hispanic White women. Mexican American women and non-Hispanic White women, however, did not significantly differ in their CAM use in the past year when we accounted for covariates. The 3 minority groups of women did not differ in overall CAM use after adjustment for covariates.

Patterns of CAM Use Among CAM Users

A primary study objective was to examine patterns of CAM use among women in different racial/ethnic groups. The following analysis is limited to women who used at least 1 CAM treatment in the 12 months before the

TABLE 2—Prevalence of CAM Use, by Racial/Ethnic Group

	Non-Hispanic Whites, % (n = 747)	African Americans, % (n = 1081)	Mexican Americans, % (n = 1057)	Chinese Americans, % (n = 1026) ^a
CAM use (any of 11 CAM domains) religion/spirituality omitted**	51.6	37.9	36.4	40.8
CAM use (any of 12 CAM domains) spirituality/religion included	64.4	57.4	43.7	43.5
Use of specific CAM domains				
Vitamins/nutritional supplements**	27.0	16.5	9.8	4.1
Medicinal herbs and teas**	16.7	14.1	18.4	12.2
Chiropractic care**	16.2	5.9	6.6	6.9
Mind/body practices (yoga, meditation, tai chi, chi gong)**	13.2	5.0	2.8	5.7
Manual therapies (massage, acupressure)**	13.1	7.2	8.2	8.8
Homeopathy ^{a**}	8.1	3.2	3.9	NA
Special diets (not for weight loss)*	4.4	3.1	3.5	1.8
Acupuncture**	2.5	0.9	1.9	7.8
Remedies associated with a particular culture (e.g., TCM, Ayurveda) ^a	2.6	1.9	3.1	NA
Prepackaged Chinese medicines without prescription ^a	NA	NA	NA	18.0
Prescription Chinese medicines ^a	NA	NA	NA	7.2
Energy therapies ^a	2.1	1.5	1.2	NA
Other alternative remedies	5.0	5.6	5.7	1.4
Spirituality/religion/prayer	37.1	42.8	18.8	6.9
CAM use and physician visits during the previous 12 months				
Neither	18.6	29.6	43.4	31.1
Saw physician; did not use CAM	29.9	32.4	20.1	28.0
Used CAM; did not see physician	15.0	11.7	16.0	16.2
Both	36.5	26.3	20.5	24.7

Note. CAM = complementary and alternative medicine; TCM = traditional Chinese medicine; NA = not applicable. The subsamples were weighted to account for selection probability in households with more than 1 eligible woman.

^aHomeopathy, remedies associated with a particular culture, and energy therapies were not included in the survey of Chinese American women. Instead, culturally specific questions about the use of Chinese traditional medicine were included.

* $P < .05$; ** $P < .01$ for between-group differences, based on χ^2 tests.

survey. Among CAM users, Chinese American women were most likely to have seen a CAM practitioner in the past year (59%), followed by non-Hispanic Whites (51%) (Table 3). The average number of CAM domains used was highest among non-Hispanic White women CAM users (2.15) (data not shown).

CAM use was common for back pain among all groups of users except Mexican Americans, for whom osteoporosis and cancer were the top health conditions for which CAM was used (Table 3). The conditions for which CAM users most commonly used CAM varied

among racial/ethnic groups and included joint pain, osteoporosis, and depression.

Multivariable Analysis of Racial/Ethnic Differences Among CAM Users

We examined racial/ethnic differences among users of CAM practitioners and specific CAM domains, after controlling for the following demographic, socioeconomic, and health-related factors: age, education, income, receipt of public assistance, employment status, birthplace, health insurance status, self-assessed health status, and visit to a medical

doctor in the past year (Table 4). We compared each of the minority groups to non-Hispanic Whites and also to each other. After adjustment for covariates, Chinese American CAM users were at least twice as likely to see a practitioner than women of other races/ethnicities were. Non-Hispanic White CAM users were significantly more likely to have seen a CAM practitioner than African Americans, but not more likely than Mexican American CAM users.

Racial/ethnic differences in the use of CAM domains are presented in Table 4. In adjusted analyses, chiropractic care was the only domain that non-Hispanic White CAM users were significantly more likely to employ than women of all the other groups. Non-Hispanic White CAM users were more likely than Mexican American and African American users to engage in yoga, meditation, or tai chi in the past year, and more likely than Mexican American and Chinese American users to have taken vitamins or nutritional supplements.

When we accounted for covariates, African American and non-Hispanic White CAM users employed similar treatments, including vitamins/nutritional supplements, special diets, medicinal herbs/teas, manual therapies, and acupuncture. African American and Mexican American women did not significantly differ in their use of any CAM domains after adjustment for covariates.

Chinese American CAM users were more likely to use acupuncture in the past year than African American or non-Hispanic White women. They were significantly less likely than any other group to use vitamins or nutritional supplements.

DISCUSSION

Rates of CAM use documented in this study, and the use of CAM as a complement rather than a substitute for conventional care, are consistent with the findings of nationally representative data.^{2,3,6} Our results, however, suggest that CAM use among racial/ethnic groups is more complex and nuanced than previously reported. For example, socioeconomic differentials account for the lower rate of CAM use among Mexican American women, but not among African American women,

TABLE 3—Patterns of CAM Use Among CAM Users, by Racial/Ethnic Group

	Non-Hispanic White, % (n = 389)	African American, % (n = 406)	Mexican American, % (n = 383)	Chinese American, % (n = 417)
Saw CAM practitioner in past year*	51.4	41.5	44.9	58.8
Commonly used CAM domains (for an illness or condition, or just to stay healthy)				
Vitamins*	52.4	43.8	27.0	10.1
Medicinal herbs*	32.5	37.4	50.9	30.1
Nonprescription Chinese medicine	44.4
Chiropractic care*	31.6	15.8	18.3	17.1
Manual therapy	25.4	19.2	22.7	21.6
Mind/body practices (yoga, meditation, tai chi, chi gong)*	25.7	13.3	7.8	13.9
CAM use for health conditions ^a				
Joint pain or arthritis*	55.9	42.9	25.0	17.5
Back pain*	53.8	43.3	27.0	29.2
Osteoporosis*	50.0	71.4	85.7	7.0
Headaches*	51.7	30.2	25.4	13.1
Cancer	38.5	16.7	57.1	0.0
Heart disease	46.2	7.7	40.0	8.3
Depression	32.2	28.0	30.8	36.4
High blood pressure	30.1	27.6	17.2	21.2
Insomnia*	34.6	24.2	23.4	9.3
High cholesterol	23.5	16.0	20.0	17.5
Weight loss	17.9	32.4	27.3	16.7
Urinary tract/vaginal infections	20.3	9.5	17.9	14.5
Uterine fibroids	10.5	5.3

Note. CAM = complementary and alternative medicine. The subsamples were weighted to account for selection probability in households with more than 1 woman.

^aAmong women who reported having each of the health conditions. Conditions for which CAM was most commonly used (top 3) are in boldface type.

* $P < .001$ for between-group differences, based on χ^2 tests.

when compared with non-Hispanic White women. Moreover, despite similar socioeconomic profiles, non-Hispanic White and Chinese women used different CAM modalities for different reasons.

Although we measured the use of religion/spirituality for health reasons and reported its use overall as in other studies,²⁷ we excluded it from our CAM measure. If religion/spirituality were included, overall CAM use would be substantially higher. Religion/spirituality was used by the greatest percentage of women in all groups except Chinese American women, who reported little such use. Many Americans find comfort in prayer, religion, or spiritual practices; however, these do not categorize well as medicine or treatment. When spiritual-

ity/religion is designated CAM, its prevalence inflates.^{7,19} We noted religion and spirituality as a factor related to health behaviors and chose to analyze it separately in a substudy of African American women, who reported engaging in religious and spiritual practices more than any of the other groups.²⁰

Culturally mediated influences affect the health care choices of women and may have more impact on 1 group than on another.²¹ Non-Hispanic White women used the widest variety of CAM and had a greater likelihood of using CAM *and* conventional services. Non-Hispanic White women may have more social resources than minority women, giving them greater access to many types of therapies,²² including those associated with less mainstream

cultures. Healing traditions from Mexico and China are more likely to influence the health care choices of Mexican Americans and Chinese Americans because of more recent immigration.^{11,23} Botanical medicine is important in the health care of indigenous cultures in Mexico and the Southwestern United States,^{22–27} and Chinese herbal medicine is codified in an extensive literature. Our sample of Chinese American and Mexican American women was predominantly foreign born, and as expected, we found a robust use of practices associated with these traditions.

Study Limitations

As is often the case, racial/ethnic categories combined individuals from varied backgrounds, sometimes grouping together those whose first languages were not the same. Levels of acculturation may mediate CAM use in the 2 groups that comprised primarily immigrants. We plan to address this in subgroup analyses. Although the use of random-digit dialing was intended to produce a nationally representative sample, between 20% and 30% of eligible individuals in the racial/ethnic subgroups refused to participate in this study. CAM use among these nonparticipants is unknown and may differ from that of the individuals who were interviewed. As is typical with geotargeting and surname sampling, the 3 samples of minorities were representative of the majority—though not the full population—of those groups in the United States.

Although the use of rigorous sampling techniques and standardized instruments permit the generalization of survey findings to a larger population, they do not support in-depth analysis of culturally mediated issues. Standardized questions cannot, by definition, address nuances of meaning across cultures. A Chinese pretest revealed that 3 CAM domains did not have meaning as worded for Chinese women; moreover, we were not adequately capturing their use of traditional Chinese medicine. Substituting questions yielded more culturally grounded data for the Chinese American sample but compromised the standardization of the instrument, thus limiting comparisons among groups. This study was not designed to explore cross-cultural issues but to provide background information

TABLE 4—Adjusted Odds Ratios of CAM Use Among Women, by Racial/Ethnic Group

	African American, AOR (95% CI)	Mexican American, AOR (95% CI)	Chinese American, AOR (95% CI)
Any CAM ^a	0.61*** (0.49, 0.74)	0.78 (0.61, 1.00)	0.72* (0.53, 0.96)
See CAM practitioner	0.59** (0.44, 0.80)	0.82 (0.58, 1.16)	1.89** (1.22, 2.90)
Vitamins/nutritional supplements	0.82 (0.60, 1.10)	0.51*** (0.35, 0.74)	0.10*** (0.06, 0.17)
Medicinal herbs and teas	1.35 (0.99, 1.84)	1.94*** (1.35, 2.80)	0.60* (0.38, 0.94)
Chiropractic care	0.37*** (0.26, 0.54)	0.58* (0.38, 0.88)	0.52* (0.31, 0.89)
Mind/body practices	0.51** (0.34, 0.75)	0.52* (0.32, 0.86)	1.26 (0.64, 2.47)
Special diets	1.07 (0.63, 1.84)	1.19 (0.64, 2.24)	0.36* (0.16, 0.85)
Acupuncture	0.51 (0.23, 1.12)	0.99 (0.44, 2.27)	1.16 (0.78, 1.74)
Manual therapies	0.71 (0.50, 1.02)	3.29* (1.33, 8.09)	1.22 (0.73, 2.02)

Note. CAM = complementary and alternative medicine; AOR = adjusted odds ratio; CI = confidence interval. All odds ratios presented adjust for the following covariates: age, education, income, receipt of public assistance, employment status, birthplace, health insurance status, self-assessed health status, and visit to a medical doctor in the past year. The reference category was non-Hispanic Whites.

^aThis analysis was conducted on the whole sample. All other analyses in this table were conducted on CAM users.

* $P < .05$; ** $P < .01$; *** $P < .001$.

for further analyses. We are continuing this work with subgroup analyses^{20,28} and a qualitative study of Chinese Americans and African Americans.

Because of inclusion of 4 racial/ethnic groups, the number of statistical comparisons in each analysis is quite large, which may have produced higher rates of type 1 error. Although these were exploratory analyses, they were “unprotected” tests and should be interpreted in that light.

Public Health Implications

Previous studies of differences in CAM use among minorities have been limited. Understanding more nuanced differences between racial/ethnic minorities is an important area of research given the increasing diversity in our society, racial/ethnic differences in health and health care, and the unique histories of CAM in communities of color. As the first national, multilingual study on CAM use among women, the study provides valuable data on the nuances of CAM use in understudied populations. Our findings suggest that although racial/ethnic minorities are the highest users of specific culturally relevant CAM domains, such as herbal medicine among Mexican Americans and acupuncture among Chinese Americans, non-Hispanic Whites are most likely to use CAM overall, and they use a

broader variety of CAM domains. Regardless of race/ethnicity, female CAM users were most likely to use CAM for chronic health conditions, such as arthritis and back pain. Conventional health care has been the focus of considerable efforts to mitigate racial/ethnic health disparities. Additional research on how CAM use might contribute to minority health is warranted. The sizable proportion of women who use CAM underscores the need for more physician education about the modalities and uses of CAM treatments and remedies. This knowledge would facilitate improved patient–provider communication and the subsequent development of treatment strategies that are culturally sensitive and accommodate the reality of women’s beliefs and practices. Greater physician sensitivity to patients’ use of CAM may be particularly relevant for minority populations, who are less likely to inform their doctors about their CAM use than Whites.²¹

Women’s frequent use of CAM raises important issues at the practical and clinical level of public health, as well as informing theory. For example, standard models of health behavior have historically been oriented to conventional medicine, and studies would benefit from the incorporation of behaviors and beliefs associated with CAM use. On the clinical level, outcomes research

and cost/effectiveness assessments that account for CAM use are also critical. Will adequate funding be available to rigorously study the safety and efficacy of the myriad CAM treatments already being used? What rationale will determine treatments selected for experimental examination? What is the appropriate evidence threshold for incorporating specific treatments, whether CAM or conventional, into clinical practice and insurance coverage? Will a full range of evidence-based treatment options be available to all women regardless of race, ethnicity, migration status, or ability to pay?

Our study contributes to the small but growing literature on CAM in diverse populations and to our knowledge of racial/ethnic differences in CAM use. As the ethnic diversity in the United States continues to increase, data such as these will be indispensable in providing comprehensive, quality care to the myriad of cultural groups in the country. ■

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Contributors

F. Kronenberg originated the study and developed the data collection instrument. C.M. Wade developed the data collection instrument and supervised the study’s implementation and revisions of the article. L.F. Cushman designed the survey instrument and supervised the field period. D. Kalmuss and M.T. Chao conducted the data analysis and interpreted findings. All authors contributed to the writing of the article.

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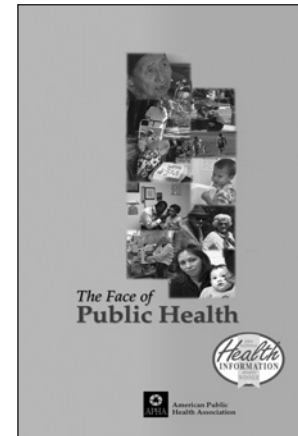
Human Participant Protection

This study was approved by the Columbia University Medical Center institutional review board.

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