ORIGINAL INVESTIGATION

Navajo Use of Native Healers

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Background: Although the Indian Health Service provides extensive health care service to Navajo people, the role of native healers, or medicine men, has not been quantitatively described.

Objective: To determine the prevalence of native healer use, the reasons for use, cost of use, and the nature of any conflict with conventional medicine.

Methods: We conducted a cross-sectional interview of 300 Navajo patients seen consecutively in an ambulatory care clinic at a rural Indian Health Service hospital.

Results: Sixty-two percent of Navajo patients had used native healers and 39% used native healers on a regular basis; users were not distinguishable from nonusers by age, education, income, fluency in English, identification of a primary provider, or compliance, but Pentecostal patients used native healers less than patients of other faiths. Patients consulted native healers for common medical conditions such as arthritis, depression, and diabetes mellitus as well as "bad luck." Perceived conflict between native healer advice and medical provider advice was rare. Cost was the main barrier to seeking native healer care.

Conclusions: Among the Navajo, use of native healers for medical conditions is common and is not related to age, sex, or income but is inversely correlated with the Pentecostal faith; use of healers overlaps with use of medical providers for common medical conditions. Patients are willing to discuss use of native healers and rarely perceive conflict between native healer and conventional medicine. This corroborates other research suggesting that alternative medicine is widely used by many cultural groups for common diseases.

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NAVAJO traditionally received treatment for illness from native healers or "medicine men." As in a conventional medical care system, many different types of practitioner exist; these range from diagnosticians such as hand tremblers, crystal gazers, and "listeners," to individuals who perform healing ceremonies involving herbs, balms, and purgatives.[1] Native healers have been the focus of extensive ethnographic study by anthropologists, psychiatrists, and physicians[1-5] but the prevalence and frequency of use of native healers among Navajo have not been described. The Navajo are also eligible for extensive free health care services through the Indian Health Service (IHS). It is not clear if conventional medical care provided by IHS physicians conflicts with the recommendations of native healers.

To improve understanding of the use of native healers and its interaction with conventional medicine, an interview was conducted of Navajo IHS patients to determine the prevalence of use, reasons for use, characteristics of those who use native healers, cost of care, and whether native healer care conflicts with care provided by conventional physicians.

RESULTS

PREDICTORS OF USE OF NATIVE HEALERS

Sixty-two percent of individuals interviewed had used a native healer at least once in their lifetime and 39% had used a native healer during the last year. Those who had seen a native healer in the past averaged 2 visits per year although the

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METHODS

Between June 23, 1997, and September 1, 1997, consecutive adult patients seen in the ambulatory care clinic at a rural IHS hospital were interviewed. The hospital is a 39-bed hospital located on the eastern edge of the Navajo reservation in New Mexico. Its catchment area contains roughly 10 000 of the 25 351 square miles of the Navajo Nation, which is roughly the size of West Virginia. Despite its location on the edge of the reservation and the access that patients have to other nongovernmental health care facilities, almost 47 000 outpatient visits were made to the hospital during the 1992 fiscal year.[6]

Eligibility was limited to consenting patients 18 years or older who did not have cognitive or physical impairment that prevented completion of the interview. An interview rather than a self-administered questionnaire was necessary because many eligible participants cannot read or cannot speak English and therefore require a translator. The overall response rate among eligible individuals was 99%; 2 patients refused to participate and 1 patient chose to respond only to demographic questions and issues related to hospital care. Three patients were excluded secondary to dementia.

THE INTERVIEW

A questionnaire was developed in focus groups consisting of the English-speaking Navajo hospital staff and a native healer. The questionnaire was then pilot tested among Navajo nursing assistants to ensure that questions were understandable, nonoffensive, and informative. The Navajo Nation Research Board, which acts as the institutional review board for research involving the Navajo tribe, reviewed and approved the study.

Two non-Navajo interviewers who were medical providers conducted the surveys in the ambulatory care clinic. The medical providers had worked at the hospital for 1 year in the continuity clinics, ambulatory care clinics, and the emergency department. The interviewer addressed the reason for the outpatient visit then asked if the patient was willing to participate in the interview. The purpose of the interview was described to potential respondents and they were assured that their responses would be kept confidential and not be entered into their medical record.

Navajo nurses and nursing assistants who knew the purpose of the interview and who spoke Navajo translated for non-English–speaking patients. The responsibilities of the Navajo nursing staff include translation between patients and health care providers. Each translator was trained to administer the interview. The interview was reviewed with each assistant individually. The questions were primarily phrased in yes/no format with open-ended questions afterward to decrease variability between translators.[7] In 3 cases, family members served as translators.

The interviews averaged 15 minutes in length and began with demographic questions on age, educational level, income, and religion. Next, respondents were asked about their interactions with medical doctors, nurse practitioners, and physician's assistants. From the patients' medical charts, the number of outpatient visits, inpatient stays made to the hospital in the last year, and the reasons for the visits were recorded. Use of conventional medicine at other locations in the last year was inquired about and the number of visits and the reasons for these visits were recorded. Patients were also asked about their satisfaction with conventional medical care for these problems. Next, patients were asked if they followed medical provider instructions all the time, most of the time, some of the time, or never.

At this point, respondents were asked about their use of native healers: whether they had ever consulted a medicine man and if so, how many times in the last year. However, no inquiry was made about the type of native healer sought or the type of ceremony performed since the native healer consultant advised that such questions might be considered intrusive. The time of their last visit to a native healer, the reasons for the visits, and satisfaction with these visits was recorded.

Then, questions were asked about barriers to medicine man care; patients were asked if the cost of native healer care, religious reasons, or trust in native healers deterred them from seeking native healer care. They were also asked if there were any other deterrents.

Finally, patients were asked about the interaction between conventional medicine and native healers: whether they had been given significant conflicting instructions about an ailment, what the nature of this conflict was, and whose instructions they chose to follow.

STATISTICAL ANALYSIS

The demographic characteristics of the population, prevalence and frequency of native healer use, and reasons for visits to medical providers and native healers were described using percentages for dichotomous variables and the mean and SD for continuous variables. The characteristics of patients who used a native healer were compared with those who did not, using χ^2 tests for dichotomous and categorical variables and t tests for continuous variables. To adjust for potential confounding, a multivariate logistic model was used to evaluate variables associated with use of a native healer. All statistical tests were carried out using STATA software.[8]

number of visits ranged widely. Among those who had used a native healer at some time but not during the past year had a mean time of 11 years elapsed from their last visit although the number of years also ranged widely.

Characteristics of the subjects interviewed are shown in **Table 1**. The age and sex distributions of subjects are similar to that of all patients seen at the Crownpoint Healthcare Facility, Crownpoint, NM, between June 23, 1997, and September 1, 1997. The median income calculated was similar to that listed by the Navajo Nation,[6] meaning 56% live below the poverty line. The rates of lifetime and recent use were not correlated with age, sex, education, income, fluency in English, identification of a primary provider, number of clinic visits or hospitalizations, or compliance with medical provider instructions in univariate analysis and multiple logistic regression analysis. There were significant differences in the rates of use among religions; use of medicine men was significantly less common among members of the Pentecostal faith ($P<.001$) than among those who identified themselves as Catholic, traditional Navajo, Native American Church, Mormon, Protestant, Christian, no religion, or Baptist. In a multi-

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Table 1. Characteristics of the 300 Navajo Individuals Interviewed*

Characteristic	Used a Native Healer at Least Once	Never Used a Native Healer
Age, y		
18-29	46 (25)	29 (25)
30-49	64 (35)	45 (39)
50-65	44 (24)	30 (26)
66-90	31 (17)	10 (9)
Sex		
Female	108 (58)	72 (63)
Income, $		
<5000	60 (32)	36 (32)
5000-9999	35 (19)	27 (24)
10 000-19 999	54 (29)	32 (28)
≥20 000	35 (19)	16 (14)
Education		
<High school	51 (28)	34 (30)
Some high school	22 (12)	25 (22)
High school	67 (36)	37 (32)
Some college	36 (19)	15 (13)
College or graduate school	9 (5)	3 (3)
Requires a translator	31 (17)	14 (12)
Religion		
Christian, not specified	25 (14)	28 (24)
Traditional Navajo, only	46 (25)	6 (5)
Native American church	41 (22)	9 (8)
Pentecostal	13 (7)	36 (31)
Mormon	27 (15)	7 (6)
Baptist	10 (5)	13 (11)
Catholic	14 (8)	1 (1)
Other	9 (5)	14 (12)
No primary medical provider	96 (52)	54 (47)
Outpatient visits in prior year		
1-5	69 (37)	42 (37)
6-10	52 (32)	34 (30)
11-20	38 (21)	35 (22)
21-50	19 (10)	13 (11)

Values are number (percentage). Because some patients chose not to respond to certain questions, numbers do not total 300.

variate logistic analysis that included all variables in Table 1 as predictors, only religion was significantly associated with use of native healers (odds ratio, 0.16; 95% confidence interval, 0.057-0.483).

PATTERNS OF USE OF NATIVE HEALERS

Table 2 summarizes the most common reasons for visits to a medical provider and the frequency of concomitant use of native healers. Among these conditions, the use of native healers was highest for arthritis, abdominal pain, depression/anxiety, and chest pain. No patient saw a native healer for upper respiratory tract infections, health care maintenance, pregnancy, or allergies.

Table 2 also summarizes the most common reasons for visits to a native healer and the frequency of concomitant use of a medical provider. These reasons overlapped with the most common reasons for seeing a medical provider, such as arthritis, depression/anxiety, back pain, and diabetes mellitus, but certain complaints such as family problems and insomnia were much more common reasons for visits to native healers than medical providers. Patients who saw native healers for arthritis and diabetes mellitus commonly consulted a medical provider in addition. Those who consulted a native healer for depression/anxiety and arthritis were less likely to also consult a medical provider, and medical providers were never consulted for "sickness," "blessing," "bad luck," or family problems.

Patients' ratings of self-compliance were high. Only 2 patients (1%) said they were never compliant. Seventy-eight patients (26%) stated they were sometimes compliant, 115 patients (38%) said they were usually compliant, and 104 patients (35%) said they were always compliant. Compliance did not correlate with use of native healers.

Dissatisfaction was reported infrequently for both medical provider and native healer use; roughly 10% of patients reported they were dissatisfied with care. Twenty patients (6.6%) reported being dissatisfied with the medical treatment of arthritis, but only 7 (2.3%) reported seeking native healer care due to dissatisfaction. Six patients (2%) reported being dissatisfied with the native healer treatment of arthritis, and 5 (1.6%) reported seeking medical care because of this. Dissatisfaction with the treatment of other complaints occurred only 1% of the time for both medical providers and native healers. Satisfaction with conventional medical care did not correlate with use of native healers.

Perceived conflict in medical provider and native healer instructions occurred infrequently. Twenty-one patients stated that their medical provider and the native healer gave them conflicting recommendations. When faced with conflicting advice, 15 patients stated they attempted to follow both sets of advice, 1 patient followed the medical provider's advice only, and 5 patients followed the native healer's advice only.

BARRIERS TO SEEKING NATIVE HEALER CARE

Medical care provided by the IHS is free, with the exception of certain procedures such as cosmetic surgery and certain items such as dentures. In contrast, the cost of visiting a native healer was reported to vary from $1 to $3000, with an average cost per visit of $388. The average annual cost of native healer use as a proportion of the patient's self-reported annual income was 0.21, or roughly one fifth. Cost was cited by 108 patients (36%) as the reason for not seeking native healer care more frequently and was the most common barrier to native healer care. Costs are a conservative estimate as they may exclude such customary expenses as transportation, feeding all those who participate in a ceremony, and costs of materials needed such as buckskin or herbs. Cost charged to the patient did not correlate with the patient's income.

Other patients stated that lack of trust in native healers (76 patients [25%]), their religion (70 patients [23%]), unsupportive families (37 patients [12%]), lack of belief in traditional Navajo medicine (33 patients [11%]), lack of knowledge about traditional Navajo medicine (20 patients [7%]), good health (11 patients [4%]), and lack of local native healers (10 patients [3%]) also acted as deterrents to native healer care.

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Table 2. Most Common Conditions for Which Treatment Is Sought*

Condition	Saw a Medical Provider	Saw a Native Healer Also	Saw a Native Healer	Saw a Medical Provider Also
Upper respiratory tract infection	83 (28)	0 (0)	. . .	. . .
Arthritis	75 (25)	18 (6)	24 (21)	18 (16)
Hypertension	70 (23)	2 (1)	. . .	. . .
Diabetes mellitus	68 (23)	8 (3)	8 (7)	8 (7)
Health care maintenance	58 (19)	0 (0)	. . .	. . .
Abdominal pain	32 (11)	9 (3)	7 (6)	5 (4)
Urinary tract infection	31 (10)	2 (1)	. . .	. . .
Back pain	23 (8)	4 (1)	10 (9)	4 (3)
Chest pain	20 (7)	5 (2)	. . .	. . .
Depression/anxiety	17 (6)	5 (2)	17 (15)	5 (4)
Pregnancy	17 (6)	0 (0)	. . .	. . .
Allergies	16 (5)	0 (0)	. . .	. . .
Skin problems	16 (5)	2 (1)	. . .	. . .
Headache	13 (4)	2 (1)	8 (7)	2 (2)
Blessing	. . .	. . .	30 (26)	0 (0)
Bad luck	. . .	. . .	20 (17)	0 (0)
"Sick"	. . .	. . .	12 (10)	0 (0)
Insomnia	. . .	. . .	9 (8)	2 (2)
Headache	. . .	. . .	8 (7)	2 (2)
Family problems	. . .	. . .	7 (6)	0 (0)

*Values are number (percentage). Because patients often had more than 1 reason per visit, percentages do not total 100. Ellipses indicate not applicable.

COMMENT

Patients use unconventional medicine extensively. In their 1993 national survey, Eisenberg et al[9] discovered that roughly 34% of respondents used unconventional therapy at an expense of $13.7 billion dollars per year. The rate of unconventional therapy use is as high as 50% among patients who use conventional medical care.[10] Smaller studies[11-13] have also determined that the use of unconventional therapy is widespread and used primarily for common chronic or self-limiting illnesses, but also used for diseases such as cancer, human immunodeficiency virus infection, and asthma.

We also found high rates of alternative medicine use in the Navajo population. Most patients interviewed had used native healers at some point and almost 40% used native healers on a regular basis. Those who had not used native healers within the last year generally had not used them for more than a decade. Cost was the main barrier to using native healers.

Religion was the only predictor of native healer use. Patients who belonged to an organized religion generally held traditional beliefs as well, but religion was a barrier to seeking native healer care, particularly if they were of the Pentecostal faith. "I'm a Christian now, so I don't go so much, but I used to go more often," stated one patient.

Patients consulted both native healers and medical providers for a wide range of health problems. Common conditions among the Navajo such as diabetes mellitus, arthritis, and depression or anxiety were common reasons for consulting both the medical provider and the native healer. However, certain diseases such as upper respiratory tract infections and allergies were recognized as the exclusive domain of the medical provider and other problems such as bad luck, blessings, and family difficulties were recognized as the exclusive domain of the native healer. This may reflect the fact that family problem is not a medical diagnosis and sickness and bad luck are also categorized differently in medical terminology. For diseases such as diabetes, native healer care was viewed as an adjunct rather than a substitute for medical provider care. The patients using native healers consulted native healers for depression or anxiety a greater proportion of the time than patients only using medical providers consulted medical providers for depression or anxiety. As one patient stated, "The doctors give me pills for my body, the medicine man gives me songs for my spirit."

Patients' satisfaction with care provided by the native healer or the medical provider did not seem to serve as a driving force to seeking alternate care because most patients were satisfied with the care they received. Patients who expressed dissatisfaction with medical care did not always seek native healer care for their health problems and vice versa.

The cost of visiting a native healer was the main barrier to use. More than one third of patients stated they would use native healers more often except for the cost. The costs listed may underestimate the costs actually involved as no inquiry was made regarding materials and ancillary costs of the ceremonies. Even so, native healer cost is high, sometimes exceeding 20% of the patient's annual income. The cost may vary for several reasons, particularly regarding the type of ceremony performed and the complexity of the ceremony. Certain diagnostic ceremonies such as hand trembling tend to cost significantly less than "treatment" ceremonies, which may involve the patient's entire extended family and last for days.

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Many patients reported that they did not trust certain individuals claiming to be native healers. While these patients still believed in traditional Navajo medicine, they stated that they could not find a trustworthy practitioner; one patient stated, "There are a lot of quacks out there," applying the term *quacks* to those masquerading as native healers. Several patients stated that certain individuals claiming to be native healers did not bother to learn the intricacies of their trade but rather charged patients for inadequately performed services. The longer ceremonies can last as long as 9 days with different chants and rituals performed throughout, and can take years of apprenticeship to learn.[2] Patients who cited lack of trust were concerned that the quality of native healer care varied substantially from practitioner to practitioner. "I know a good one, so I use him a lot," stated one patient.

Lack of availability of local healers also acted as a barrier. No exact tally exists of the number and location of native healers, but several patients stated that the number of local healers varies at different locations on the Navajo reservation. "All the good medicine men are far away," stated one patient. "I would have to drive 3 hours to get the ceremony I need."

Participants in the survey may not accurately represent Navajo patients, as patients interviewed were exclusively drawn from those who seek care at an IHS hospital; the use of native healers may be much higher for those who do not seek conventional medical care or who seek care at a nongovernmental hospital. Also, as previously mentioned, the reservation is large and the IHS site where the interview was conducted is located at the edge of the reservation. Thus, patients interviewed may have easier access to non-Navajo sources of health care than patients who are located in the interior of the reservation. Conversely, patients located in the interior of the reservation may have easier access to native healers than the patients interviewed if there is a higher concentration of healers in the interior of the reservation. Finally, not all Navajo live on the reservation, and it is unknown how this population's access to conventional or native healer care differs from the populations mentioned above.

The fact that 2 non-Navajo medical providers conducted the interview in a hospital clinic may have led to an underestimate of patients' use of native healers. Patients may have felt uncomfortable divulging the frequency or history of use for fear of how this might influence their medical care due to the misperception that the interviewers, being non-Navajo, might be prejudiced against native healer care. Also, since patients had just received medical provider care, they may have been reluctant to state they were dissatisfied with their medical care. Similarly, they may have overestimated their compliance rates with medical care.

As with many other subpopulations in the multicultural society that composes the United States, the use of alternative medicine is common among Navajo patients. Patients usually do not perceive conflict between different health system beliefs and may use remedies prescribed by several practitioners for a single health care problem; they may perceive such an approach as more effective than using a single system. This may be rooted in the belief that disease is multifaceted, and different health care systems treat different facets effectively.[5] As one patient succinctly stated, "It is better to stand on two legs than on one." Therefore, inquiring about patients' use of native healers can significantly enhance understanding of the patients' health.

Even though use of native healers can be a religious and private issue, patients are willing to discuss their use of native healers if asked in a sensitive manner. Increased understanding of this deeply rooted system can improve communications between providers and patients and, therefore, can help medical providers improve the quality of care provided. Further research is needed to elucidate how extensive native healer use is across various areas of the Navajo reservation, what patients' expectations of their various health care providers are, their view of the success of the care provided, and how conventional care and native healer care can interact with each other to increase the overall effectiveness of care provided to the patient.

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