Issues in Achieving Compliance with Antihypertensive Treatment in the Latino Population

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Latino Americans are the largest growing ethnic minority group in the United States. The level of awareness and control of hypertension among Latino Americans has remained virtually unchanged in the past 20 years. Untreated hypertension often progresses and is a major risk factor for cardiovascular disease. Hypertension control can be achieved with simple and well-tolerated medication regimens that are cost-effective and reduce morbidity and mortality in all populations studied. Clinicians can work to increase compliance by developing a basic understanding of the social, demographic, and historical conditions that affect Latino Americans. Language proficiency, cultural scripts, and health beliefs and attitudes influence patient–clinician communication in specific ways among Latino patients. Health care systems and plans should work on creating culturally competent health care programs to serve the needs of this diverse population. (Clinical Cornerstone. 2004;6[3]:49–64) Copyright © 2004 Excerpta Medica.

INTRODUCTION

Chronic elevation of arterial blood pressure (BP) is one of the major risk factors for coronary heart disease and the principal risk factor for stroke. Although systolic BP (SBP) and diastolic BP (DBP) are indicators for the risk of cardiovascular morbidity and mortality, hypertension is operationally defined at specific levels to facilitate detection and treatment of persons most likely to benefit from antihypertensive therapy. According to the Seventh Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure (JNC VII), a person is said to have hypertension if he or she has chronic elevation of SBP ≥140 mm Hg and DBP ≥90 mm Hg or is taking antihypertensive medication. Levels of SBP between 120 and 139 mm Hg and of DBP between 80 and 89 mm Hg are considered prehypertension and normal is SBP <120 mm Hg and DBP <80 mm Hg. Diagnosis of hypertension requires that an individual have elevated measurements on at least 2 separate occasions 2 to 4 weeks apart under standard conditions.

PREVALENCE OF HYPERTENSION AMONG LATINO AMERICANS

The prevalence of hypertension among Latino Americans has now been demonstrated to be no greater than among whites, and age-adjusted rates may actually be somewhat lower. Results from the Stanford Five-City Project, the Hispanic Health and Nutrition Examination Survey (HHANES), and the Third National Health and Nutrition Examination Survey (NHANES III) confirm earlier observations that the prevalence of hypertension among Mexican
Prevalence of hypertension among Latino men is higher than among Latino women, and overall rates increase with age in both men and women. Studies from New Mexico and Colorado have found that prevalence of hypertension was lower or similar compared with that reported for whites despite a higher rate of obesity and diabetes. The San Antonio Heart Study reported their early results on prevalence of hypertension among 1288 Mexican Americans and 929 whites, using DBP ≥95 mm Hg as the definition for hypertension and reported similar rates among Mexican Americans and whites. Additional results from the San Antonio Heart Study compared the prevalence of hypertension in 3297 Mexican Americans and 1873 whites aged 25 to 65 years. Hypertension rates for Mexican Americans were similar to those for whites among men (17.8% vs 17.5%) and women (14.6% vs 15.9%). After adjusting for age, body mass index (BMI), and prevalence of diabetes mellitus (DM), Mexican Americans had a statistically lower prevalence of hypertension among men and women, with odds ratios (ORs) ranging from 0.66 to 0.71 depending on the definition. (However, another study from Starr County, Texas, reported rates of hypertension among adults aged 55 to 65 years.) The prevalence of hypertension was higher than the NHANES III sample of Mexican Americans and may indicate that some subgroups of Mexican Americans may have substantially higher rates of hypertension when living under different social conditions.

The HHANES is the only study that has compared samples from 3 major Latino groups of different national origin, and the data on hypertension prevalence provide convincing evidence that rates are lower than among whites. Using standard definitions, age-adjusted hypertension prevalence estimates did not exceed 23% for men and women in any of the Latino groups. Mexican American men had a rate of 22.9%, Puerto Rican men had a rate of 19.7%, and Cuban American men had a prevalence of 20.5%. Rates were lower among Latina women than among Latino men in all 3 groups—Mexican American, 19.7%; Puerto Rican, 18.0%; and Cuban American, 13.8%. Because concurrent comparison groups from white and African American populations were not included, comparisons were made to the rates reported in the NHANES II for whites (32.6% for men and 25.3% for women) and for African Americans (37.9% for men and 38.6% for women). The reliability of the HHANES data on Mexican American women has been questioned in the literature, but most of the published studies indicate that Latino Americans have a rate of hypertension that is not higher than that among whites.

The first 2 phases of NHANES III were conducted from 1988 to 1991 and surveyed Mexican Americans, whites, and African Americans aged 18 to 74 years in the United States, but no other Latino groups. Overall age-adjusted prevalence of hypertension among Mexican Americans was 22.6%, similar to the 21.1% rate reported for this group in the HHANES and the 23.3% rate for whites, and lower than the 30.2% rate reported for African Americans. After adjusting for gender, income, physical activity, BMI, salt intake, alcohol intake, and location, Mexican Americans had an adjusted OR of 0.75 (95% CI, 0.62–0.89) for hypertension compared with whites. Rates of hypertension did not differ substantially by gender among Mexican Americans, and the overall estimate of the adult hypertensive population was 604,000 men and 539,000 women. The overall mean SBP/DBP for Mexican Americans in the NHANES III was 124/73 mm Hg for all adults (men, 127/76 mm Hg; women, 121/70 mm Hg) and this did not differ from that for whites. Subsequent NHANES studies conducted in the 1990–2000 period indicated that the absolute overall prevalence of hypertension increased by 3.7% and that overall, Mexican Americans had significantly lower rates of BP control compared with whites.

**KEY POINT**

Mexican Americans had lower levels of treated and controlled hypertension compared with whites and African Americans after adjustments for age, gender, and obesity, and fell well short of the blood pressure goal set by the Public Health Service.
Preliminary analyses from subsequent waves of NHANES in 1999–2000 indicate that the prevalence of hypertension among Mexican Americans may actually be increasing.

Analyses of the NHANES III data for women 25 to 64 years of age showed significant differences in SBP by ethnicity, with higher rates for Mexican American and African American women compared with whites after adjusting for other variables.18 Mexican American women had SBP levels intermediate between African Americans and whites and the increase in SBP with increasing age was greater. However, among younger adults (18–24 years of age) there were no differences in adjusted SBP between Mexican Americans and whites of either sex.19 In the NHANES III Mexican American sample, Spanish-speaking participants and those born in the United States had a significantly higher adjusted SBP compared with whites; US-born, English-speaking Mexican Americans; and Mexican-born participants.20 These findings suggest a potential adverse effect of bicultural status among Mexican Americans compared with the less acculturated Mexican-born and the US-born, English-speaking Mexican Americans.

Since the HHANES, there have been few studies on hypertension among Latino groups other than Mexican Americans. One study of Caribbean Latino Americans in Massachusetts compared 597 Puerto Ricans and Dominicans to 243 whites aged 60 to 92 years sampled from the same neighborhoods. Although the rate of hypertension was similar among the 3 groups, SBP was higher for Latino Americans and they were 2.6 times more likely to have systolic hypertension compared with white subjects after adjusting for potential confounders.21

Comparisons of 3 epidemiologic studies of Mexican nationals in Mexico City, Mexican Americans in San Antonio, and Spaniards reported an excess prevalence of hypertension in Spaniards, with an OR of 1.53 (95% CI, 1.24–1.90). Mexican nationals had a statistically significant lower risk of hypertension, with an OR of 0.67 (95% CI, 0.53–0.85). Adjustment for obesity, DM, physical activity, alcohol consumption, and education did not explain the excess risk among Spaniards. Thus, one can infer from these data that there may be some genetic component that accounts for excess hypertension among Spaniards.22

**Hypertension Awareness, Treatment, and Control**

Although Latino Americans may have lower rates of hypertension in most epidemiologic studies, the level of hypertension awareness and control has remained virtually unchanged in 20 years of monitoring. The rate of controlled hypertension reported in the HHANES was 34.0% for Mexican Americans, 29.0% for Puerto Ricans, and 27.8% for Cuban Americans, and this was not an improvement over those reported earlier in a San Antonio study.2,5 Rates of hypertension awareness, treatment, and control were consistently lower in Latino men compared with Latina women in the HHANES survey, with <10% of hypertensive Latino men having their hypertension controlled.23 Data from NHANES III found no substantial improvement a decade later, with only 54% of Mexican Americans aware of their hypertension, 35% being treated, and 14% having hypertension controlled compared with whites, among whom 70% were aware, 54% were being treated, and 24% had hypertension controlled.24 Mexican Americans had lower levels of treated and controlled hypertension compared with whites and African Americans after adjustments for age, gender, and obesity,24 and fell well short of the goal set by the Public Health Service to have 50% with controlled hypertension by the year 2000. In the San Antonio Heart Study, Mexican American men were less likely to be treated than whites (79.1% vs 92.2%), although treatment differences were not observed for women.13 These disparities in hypertension awareness, treatment, and control have been consistently found in regional studies dating back to the late 1970s.25–27 In another study, Latino Americans were significantly more likely to have borderline or poor control of hypertension even though the likelihood of being on treatment was the same as for whites.28 These findings suggest that Latino Americans may have lower adherence with treatment for hypertension or that physicians may treat Latino Americans less aggressively.

Hazuda and colleagues29 compared the knowledge and behaviors related to the prevention and treatment of coronary heart disease in whites and Mexican Americans from 3 distinct neighborhoods and found that whites were significantly more informed than Mexican Americans about prevention of heart attacks. Knowledge that was significantly different included
eating a low-fat diet, not smoking, and exercise, but knowledge that control of high BP was related to prevention of heart attacks was similar in both ethnic groups. Whites reported engaging in significantly more individual behaviors to prevent heart attacks than Mexican Americans, and for both ethnic groups, knowledge about behavior to prevent heart attacks increased with higher socioeconomic status. Thus, Latino Americans tend to have less knowledge overall about hypertension, be less aware of it, and find it challenging to implement lifestyle changes designed to reduce hypertension risk.

A study from Galveston, Texas, compared prevalence and treatment of hypertension in a community-dwelling sample of adults aged ≥77 years in 3 ethnic groups. The results showed that among persons with hypertension, Latino Americans (45%) were less likely to be on medications compared with white (63%) and African American (60%) counterparts. Lack of Medicaid insurance was a significant factor associated with lower use of antihypertensive medications among Latino Americans. A study from Southern California compared use of antihypertensive treatment in almost 8000 Latino Americans and 6387 African Americans aged ≥45 years. Compared with Latino Americans, antihypertensive medication use was higher among African Americans (61% vs 48%), who also were more likely to be prescribed diuretics. Beta-blockers were infrequently used in both ethnic groups, with only 13% overall.

**Nutritional Factors, Acculturation, and Stress**

The observation that estimates of hypertension prevalence among Latino Americans are similar to or lower than that among whites was not to be expected given what is known about predictors of hypertension. In addition to gender and age, obesity and DM increase BP, and both conditions are substantially more prevalent among Latino Americans. Additional dietary factors that influence the development of hypertension include intake of sodium chloride and potassium and these have been less well studied among Latino Americans. In 1 study, salt purchases among 4 predominantly Latino census tracts were 1.5 to 2 times that of 37 predominantly white census tracts in Houston, but both were lower than that of predominantly African American census tracts.

Consumption of an average of ≥2 ounces of alcohol per day has also been associated with hypertension. Among women and persons of lower weight, the effect of alcohol on BP may be observed at a lower threshold. Alcohol use among Latino Americans varies substantially by gender. In general, Latina women tend to drink less than white women, and a lower overall proportion drink at all. However, binge drinking among Latino men is more common and this may contribute to hypertension.

The presence of a significant African admixture in Cuban Americans and Puerto Ricans does not seem to confer the greater likelihood of elevated BP seen in...
African Americans. Possible explanations for these observations include differences in micronutrient content of diet, genetic differences, and qualitative differences in environmental stress. One study found an association of higher BP among blacks with darker skin color and with fewer years of formal education.\(^3^6\) These findings provide evidence for a societal component of discrimination that may promote manifestation of hypertension among African Americans.\(^3^6\) The Puerto Rico Heart Study also reported that men with darker skin color had higher SBP after controlling for differences in socioeconomic status.\(^3^7\) Subsequently, this group found that darker-skinned men had approximately twice the prevalence of left ventricular hypertrophy as a consequence of hypertension compared with lighter-skinned men.\(^3^8\) The significance of these findings is in need of further study and may be confounded by genetics. The overall rates of hypertension in Puerto Rican and other Caribbean black populations appear to be substantially lower than the rate among African Americans.

The stress associated with acculturation to the mainstream English language US culture may promote BP elevation. Analyses using HHANES data found that among Mexican Americans between 55 and 74 years of age, acculturation and age were stronger predictors of hypertension than poverty status.\(^3^9\) Analyses of the San Antonio Heart Study showed that poor BP control was significantly associated with low sociocultural status and low levels of assimilation among Mexican Americans.\(^4^0\) Among Mexican American women, studies show that the prevalence of hypertension decreases with higher socioeconomic status.\(^4\) One hypothesis is that modernization and acculturation have a harmful effect on health until a particular threshold is reached, whereupon assimilation becomes protective.\(^5\) The possible contribution of acculturation-derived stress to the presence of hypertension in Latino Americans is in need of further study.\(^4^1\) The transcultural analysis of the NHANES III data showing association of elevated SBP in Mexican Americans born in the United States, but who preferred to respond to the questionnaire in Spanish, is intriguing.\(^2^0\) The burden of sustaining a bicultural identity may be an additional factor to consider in the acculturation process. The role of stress in development of hypertension has been much debated in the literature, but has been hypothesized to contribute to the greater prevalence of hypertension among African Americans.\(^4^2\) Although most persons can identify stress, operationally stress is difficult to ascertain and measure. Regardless, stress does not appear to have the same effect on Latino Americans or may manifest differently than in blacks. The fact that Latino Americans in the United States have on average less education, less income, endure language barriers, and face overt pressures to assimilate to the mainstream culture has not resulted in a higher prevalence of hypertension than among whites.

## Treatment and Control of Hypertension

One of the significant complications of untreated hypertension in low-risk populations is progression to higher levels of BP, as has been observed in 12% of participants receiving placebo in clinical trials.\(^1\) In a landmark study in New York City of 100 patients presenting to the hospital with a hypertensive crisis, 39% were Latino Americans and 26% of the group spoke no English.\(^4^3\) This severe form of hypertension should be rare in the United States and is completely preventable. The relatively high proportion of Latino Americans with limited English proficiency among these patients suggests that the principal reason is lack of access to appropriate health care that would have led to detection and early treatment of hypertension.\(^4^3\)

Treating hypertension reduces the risk of stroke incidence, coronary artery disease, congestive heart failure, and cardiovascular death and is a central component of prevention of morbidity and mortality in all populations.\(^1\) Stage I elevations in DBP or SBP should be initially managed with nonpharmacologic methods that address weight loss, physical activity, alcohol restriction, and modification of dietary...
micronutrients such as sodium and potassium, especially when the patient has no other cardiovascular risk factors. Structured instruction in relaxation techniques has also been found to decrease BP in some populations. However, dependence on lifestyle changes alone may result in frustration if the desired lowering of BP is not achieved. Treatment with medication will almost always be superior to lifestyle changes in controlling BP and should be the primary emphasis of clinicians.

Hypertension control can be readily achieved in most persons with simple and well-tolerated medication regimens that are cost-effective. The JNC VII guidelines should be systematically applied to Latino Americans, with special attention in the presence of other major cardiovascular risk factors such as cigarette smoking, elevated cholesterol levels, and DM. Clinical evidence for end organ damage from hypertension mandates pharmacologic approaches for control of BP. Treatment with a recommended single agent is successful in about half of all patients with hypertension. Combinations of small doses of 2 types of medications and nonpharmacologic approaches to treatment should be sufficient to control hypertension in the majority of patients. Latino Americans have not been reported to have differential response to medications, but clinical trials have often included only small samples of Latino Americans and thus have not been able to compare medication response by ethnicity.

**COMPLIANCE WITH ANTIHYPERTENSIVE TREATMENT**

To maximize adherence to hypertension treatment, regimens need to be simple and interfere as little as possible with quality of life. Motivational strategies to improve adherence have been successful in 10 of 24 studies. More complex interventions that used >1 technique were not more successful than motivational strategies. Although almost all studies showed that patient education alone seems to be largely unsuccessful, 1 study of Latino patients did show improved adherence from 69% to 93% after an educational intervention. Adherence to nonpharmacological regimens requires high motivation and the ability to initiate major lifestyle behavioral changes. Adherence to medication regimens can be promoted by once-a-day dosing of an affordable agent, anticipating adverse effects and changing the dose of drug appropriately, and promoting a strong therapeutic alliance between health care provider and patient.

**Language Factors in Compliance with Antihypertensive Treatment**

Language differences between patient and clinician can present a significant barrier to the delivery of high-quality health care. The effect of language differences between patient and clinician can lead to suboptimal medical effectiveness and health outcomes. Independent of empirical evidence that language barriers affect health care delivery, there is a fundamental premise that communication in the same language is more effective than using third-party interpreters. Data from the US Bureau of the Census indicate that ~78% of Latino Americans speak Spanish at home, and only half report an ability to speak English very well. A quarter of Latino Americans have limited English proficiency (LEP), meaning they responded “not well” or “not at all” to the question “How well do you speak English?” Health care for this population would best be provided by Spanish-speaking clinicians. However, given current proportions of Latino physicians in the United States and the stable proportion of Latino medical
students in the past decade, it seems unlikely that increasing the number of native Spanish speakers will be a solution to this challenge. An increasing number of US physicians have recognized the importance of learning Spanish; teaching “medical Spanish” in areas of the United States with large concentrations of Latino Americans may help. However, questions of the quality of Spanish and fluency, especially in communicating about social and emotional issues, have been raised.47

**Use of Interpreters**

Use of professionally trained interpreters can help improve communication between patient and provider in language-discordant encounters, but the lack of a reimbursement mechanism limits their use outside established systems that make a commitment despite cost. Federal and state laws now require health care systems that receive government funds to provide full language access to health care services. In fact, the 1999 version of the Health Plan Employers Data and Information Set (HEDIS 3.0) now includes an indicator of availability of language interpretation services. Despite these legal mandates, full language access to health care services remains a distant reality. In lieu of trained medical interpreters, many clinicians may rely on their own limited foreign language skills or on untrained interpreters, which may result in inaccurate interpretation.

A survey of primary care physicians in San Francisco found that previous training in how to work with interpreters resulted in more satisfactory clinical experiences when seeing LEP patients.48 Professional interpreters were also found to make fewer errors of commission or omission in translating during pediatric urgent-care interactions with a Spanish-speaking population.49 No comparisons were made with language-concordant interactions.

Often, because of a lack of professional interpreter services, family members may be used to help with translation, which can lead to problems. An adolescent may be asked to translate for a parent or grandparent and sensitive issues may be avoided because of embarrassment (e.g., erectile dysfunction as a consequence of a medication for hypertension). Reluctance to reveal personal problems in the presence of family members may lead to incomplete patient histories, and accuracy of translating medical terminology may be limited. It is also common for elderly patients to be brought to the physician’s office by their adult son or daughter, who reports the patient history directly to the physician. These overprotective family members may censor information that they think is unimportant but that may be critical medical information. Another common approach to bridge the language gap is to request that a staff person in the clinician’s office translate for the patient, independent of clinical background. This may also present problems of accurate interpretation, and in some cases the inability to speak Spanish well may exacerbate errors. Furthermore, staff and patients often live in the same community and may see each other in the neighborhood store, church, or park. Thus, patient concerns central to compliance with antihypertensive treatment may be avoided because of embarrassment and/or desire for privacy. In the absence of an alternative, physicians may use less than optimal approaches to communicate with and deliver appropriate health care for LEP Latino patients. However, clinicians must be aware of the potential limitations of these approaches and address these concerns directly with the family or the patient, if possible. It may be critical to have a more objective, professionally trained interpreter during some of the patient–provider encounters to fully address compliance with treatment strategies.

Although the use of interpreters is one of the options to help solve problems of language differences, the complexity of a triangular interaction can often lead to gaps in clinician–patient communication. Examination rooms may be inadequately set up for 3 persons and lead to awkward situations. Clinicians need to maintain eye contact with the patient rather than speak to the interpreter and should request the same of the patient. Nonverbal communication may take on a heightened role, and use of facial expressions, hand movements, and even demonstrating specific behavior may be important in promoting better compliance with treatment.

**Language Concordance Between Clinician and Patient**

The potential importance of language concordance was addressed in a study of 38 patients stratified by language ability in a community clinic setting. The study used rigorous qualitative methodology to assess patient–physician communication across language
barriers. The hypothesis of this study was that English-speaking physicians would be less likely to provide patient-centered care to patients requiring an interpreter. Patient-centered care was defined by analysis of the clinical encounter and categorizing patient "offers" that included any topic or question introduced by the patient during the encounter that was not a response to a direct question from the physician. Clinical encounters were videotaped and coded, and English- and Spanish-speaking patients were compared. Spanish monolingual Latino American patients using interpreters were significantly less likely to make offers to their physicians in 5 of the 6 defined categories. The language barrier resulted in a significantly lower score for the patient-centered encounter for the Spanish-speaking patients that was independent of ethnicity.

This study began to address an important topic with empirical data. Clinical encounters that depend on an interpreter may not achieve the same amount or quality of communication compared with language-concordant patient–clinician encounters. In this study, all of the patients were new and may not have had the opportunity to develop trust in the physicians. Effective communication through an interpreter may take twice as much time, so development of trust in the physician may evolve over several visits. However, the significant findings in this study were in a relatively young patient population without obvious chronic illness. These differences would be expected to be greater in older and chronically ill patients with hypertension in a primary care practice. Other studies with LEP patients in Spanish and non-Spanish languages showed that among patients with DM or hypertension, the encounters dependent on interpreters did not result in a differential outcome in parameters of glucose control, BP control, or recommended tests. A study among Puerto Ricans with asthma in New York reported a trend toward fewer emergency department visits and better medication adherence when there was language concordance between patients and physicians.

Although an effect on clinical outcomes has not been shown, language concordance between chronically ill patients and their physicians is important. The duration of interpreter-mediated visits and regular patient–physician visits was similar; thus, much less communication was likely to be taking place between patient and clinician during encounters with interpreters. Among patients with DM or hypertension, language-concordant LEP Latino patients were found to report less pain, perceive better health outcomes, and have better scores overall using scales from the Medical Outcomes Study. In another study from New York, monolingual Latino patients asked more questions and recalled more information provided by physicians when seen by a Spanish-speaking physician. There is also evidence that Spanish-speaking Latino patients tend to be less satisfied with their health care and the quality of communication with their physician compared with English-speaking Latino patients. The fact that language concordance has not significantly affected BP control in these studies may be more a reflection of sample size rather than clinical situation.

Functional Health Literacy

In addition to language differences, level of literacy must also be considered when caring for Latino patients. On average, Latino patients have completed fewer years of formal schooling compared with whites and African Americans and, even in Spanish, a patient's literacy level has to be considered when providing information and counseling. Although the role of functional health literacy is an issue in the care of all patients, empirical studies have shown that older Latino immigrants are the most likely to have this limitation. In 1 study among patients with DM, functional literacy was correlated with glucose control and most of the patients with limited literacy were Latino immigrants aged >50 years. Clinicians need to understand the issue of literacy and try to ascertain the patient's level of understanding and education in Spanish in a sensitive manner. Only after doing so can one provide information at a level that is understandable to patients. Materials need to be available in Spanish, be culturally sensitive, and targeted to a fifth-grade reading level.

Cultural Considerations in the Treatment of Latino Patients

To provide optimal care, a clinician needs to appreciate the social, cultural, economic, educational, linguistic, and personal background of the patient. The Latino population is a heterogeneous one in that Latino Americans differ in national origin, religion,
An understanding of some basic cultural values and beliefs that Latino Americans share can help bridge differences in background between patient and clinician and thus help promote adherence with antihypertensive treatment regimens.

**Familialism**

Familialism, also called *familismo*, is a cultural value that involves a strong attachment and identification to one's family. Strong feelings of solidarity, loyalty, and reciprocity often exist among members of the same family, and this value helps provide natural support systems by protecting individuals against physical and emotional stress. The collective orientation of Latino culture is reflected in these strong family bonds. An understanding of and respect for familismo can be useful for the clinician in the health care setting. Latino patients will often turn to family for support and help in making health care decisions. Recruitment of a patient's family members can be a useful approach for clinicians when attempting to encourage certain health care behaviors.

In the context of hypertension treatment, the role of the extended family can be particularly important. Women are most often responsible for preparation of food; thus nonpharmacologic interventions can be mediated through effective communication with the principal caretaker in the household. This is especially important when trying to promote behavioral change in nutritional habits and physical activity among Latino men. Latino Americans may be more likely to adhere to treatment regimens for the benefit of the collective family unit rather than for their own individual reward. An appeal to taking medication to lower BP so that one can be there for one's children as they grow up is likely to be a more effective message than one that focuses on benefits for the individual. There is evidence to support this collectivist orientation from studies that compare Latino and white cigarette smokers' reasons to want to quit; quitting for the health of the children is the most important reason reported by Latino American smokers. Simpatia may be responsible for socially desirable responses by Latino patients in clinical settings to avoid contradicting the authority figure that a physician represents. As a result, clinicians should be aware that often Latino patients will nod assent or indicate agreement when, in fact, the patient may disagree or does not understand the issue at hand. Thus, clinicians should make certain that patients understand specific concepts or instructions by having them repeat instructions or explain concepts back. This cultural script may in fact present a barrier at all socioeconomic levels, but is particularly challenging in caring for Latino Americans with LEP and less education.

In promoting adherence with hypertension treatment strategies, the role of the patient–physician relationship should not be underestimated. The clinician needs to be aware that the cultural expectation of the Latino patient is for a doctor to be like a “friend,” even with the formal professional distance between patient and physician. After establishing the smooth social relationship reflected in the simpatia script, patients may be more likely to follow a clinician's advice regarding behavior change or to take medications as instructed.

**Personalismo**

Another cultural script that has been described among Latino Americans is personalismo, literally translated as “formal friendliness.” Personalismo is a character trait sought in individuals perceived to hold power or authority over an individual or group. In the case of a physician, this authority is a reflection of knowledge about health and disease gained by education. Patients will often prefer that their physician have some trait consonant with personalismo and use this to define a mode for social interactions. In practice, Latino patients may be more likely to want to discuss nonmedical issues with their doctors, inquire about the well-being of the physicians and their families, and feel comfortable talking to their doctors as “friends.” Legitimate use of humor in communication, some sharing of personal experiences, and other interactions that lead a patient to feel like the doctor could be a neighbor capture the spirit of this cultural script. Although variable by gender, individuals, and social class, Latino Americans will often prefer clini-
cians with formal friendliness or personalismo as opposed to more professional distance, regardless of true competence. Physicians who usually operate under time constraints conducive to a business-like approach to the delivery of health care may find it challenging to adhere to this cultural script.

Gender Roles

Latino Americans have defined gender-based roles that are strongly emphasized in traditional Latino culture. Latino men have been characterized by the term machismo and this has most often represented the domination of society by men and in many cases overt oppression of women. However, machismo also refers to the assumed cultural expectation for Latino men to be strong, in control, and serve as the family provider. 58 This role has potential to be used in promoting better adherence with treatment of hypertension among men who may be otherwise resistant to health promotion messages. For example, a Latino man who assumes this traditional role may be more likely to respond to concerns about the family's health or about who will be available to provide for his family if he should get ill due to not taking medications or implementing a behavior-change program. Although specific interventions incorporating the machismo theme have not been studied empirically, several effective programs have included this theme as part of the intervention.

Latina women have the expectation of being the mother and caretaker of the family. In fact, women tend to be the key persons in a household to hold health information and provide the healer function at home as needed. In this way, women in the family should be the focus for the clinician seeking to promote behavior change or adherence with any treatment strategy. The role of health care provider/healer at home is usually assumed by the older women in the family. In addition, women may be more affected by religious beliefs dominated by the Catholic Church, and such perceptions will often influence reproductive health practices. This may be important in prescribing specific medications contraindicated in pregnancy such as angiotensin-converting enzyme inhibitors.

Fatalismo

Fatalismo, another important Latino cultural concept, is the belief that there is little an individual can do to alter fate. 60 The impact of fatalismo as a cultural theme has been studied in terms of knowledge regarding cancer and its prevention. 61 Latino Americans were more likely to believe that cancer is God's punishment, there is very little one can do to prevent cancer, having cancer is like getting a death sentence, and they would rather not know if they had incurable cancer. 61 However, no systematic studies have been conducted with cardiovascular disease prevention to evaluate whether these beliefs also apply to other conditions. Latino Americans with less acculturation tend to have higher levels of fear and fatalistic thinking compared with Latino Americans with more acculturation, independent of educational attainment. 62 Fatalistic thinking has been shown to be associated with delays in care for Latina women with abnormal Pap smears and delays in getting Pap smears, suggesting that fatalismo may reflect more profound religious beliefs rather than a separate cultural theme. 63,64 Other studies, however, have suggested that fatalismo does not influence cancer-screening behavior. 65,67

Complementary and Alternative Medicine

In Latino cultures, complementary and alternative medicine (CAM) has been called folk healing. These practices and beliefs are prevalent particularly among the less acculturated and more recent immigrants, especially those close to the Mexican border. There are limited empirical data on use of CAM in the Latino population, but 1 survey in New Mexico found that about half of older patients used herbal medicines. 68 Clinicians need to understand this important topic in its cultural context to help serve Latino patients more effectively.

The first layer of CAM occurs at the neighborhood level where frequently there is a specific lay healer who is most often an older woman. The older señora or abuela provides advice and recommends use of common remedies handed down by older generations as well as some over-the-counter treatments. The yerbero, or herbalist, and the sobador, or massage therapist, are more specialized healers in the community and may frequently be consulted about high BP.

Curanderismo is commonly encountered among Mexican Americans, and its roots come from the various Latin American Indian tribes. The main belief is harmony with nature, spirit, and self. Folk healers are
called curanderos and their healing techniques usually involve a combination of herbal infusions, prayer, and dramatic healing rituals. Common symptoms for which curanderos are sought out include headache, back pain, gastrointestinal complaints or empacho (intestinal distress), and fevers. Other less common symptoms include particular folk conditions such as susto (soul loss) and mal de ojo (evil eye). Many Latino patients use the services of curanderos, which may have important implications for their health care. Other Latino groups call the healers espiritistas or santeros, and in many cases these healers work more closely with emotional and spiritual illnesses rather than physical ailments.

The imbalance of hot and cold is thought to lead to illness and many of the recommendations generated by lay healers are an effort to reestablish balance. Hypertension is a "hot" disease thought to be caused by anger or fear related to stress. Hypertension is treated with "cold" therapies such as bananas, lemons, and teas made from passionflower (pasionaria) and linden flower (tilia). Garlic (ajo) and zapote blanco are also used as remedies recommended by curanderos in treating hypertension. Among some recent immigrants who adhere to this belief system, the clinician may be able to promote adherence to medications by adopting this terminology. Latino Americans also tend to widely believe that stress causes BP elevations and that once the stress is managed, BP will be normal. There is a risk that the CAM perspective on hypertension is that it is a transient condition that can be cured once the hot/cold balance is reestablished and stress is better managed. This perspective contradicts the reality that hypertension is an asymptomatic condition that needs to be managed and controlled over one’s lifetime. Patients should be made aware that they may require lifelong drug therapy to achieve adequate BP control, independent of the patient’s level of stress at the time.

CONCLUSIONS

Latino Americans represent the largest growing ethnic minority in the United States, and hypertension affects about 25% of Latino adults. Only recently has attention been focused on serving the health care needs of this diverse population, and attempts to identify barriers to health care are under way. To most effectively serve the Latino community, clinicians must (1) recognize that the Latino population is a diverse one with unique characteristics found within each subgroup; (2) understand that financial status, educational level, and current health status are important in terms of targeting areas for improvement; and (3) consider specific cultural factors that may explain differences in health care behavior. These components may define what many have labeled “cultural competence” in caring for Latino patients. Cultural competence is defined by a set of attitudes, skills, and behaviors on the part of individuals and policies that enable organizations to work effectively in cross-cultural situations. It may be possible to create a qualification of caring for Latino Americans (or other ethnic groups) that includes language ability and a self-reported category of competence. Cultural competence would presumably incorporate the population perspective and a basic understanding of the social, demographic, and historical conditions that affect the Latino population.

REFERENCES


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EDITORIAL BOARD
Among the strategies proposed for correcting the disparities in health care provided to the Hispanic population, which do you think are the most important?

PEREZ-STABLE
Providing health care coverage or insurance to those individuals with a chronic disease, such as hypertension, whether symptomatic or not. Although I personally believe that everyone should be provided access to health care, providing access to those with a chronic illness would be a reasonable first step toward that end. This would allow for individuals to be more aware and likely to work effectively with physicians and health care resources and achieve better control of their hypertension.

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What would be second on your priority list?

PEREZ-STABLE
That’s an interesting point. Although the machismo factor is typically viewed as being a negative, it has some positive connotations. For the male Hispanic patient, it means being a caretaker and making sure that his family is taken care of. One way to get the male to react to that role is to say that if you don’t take care of yourself and don’t properly manage your preventable health problems, like hypertension, then who’s going to care for your family? If you have a stroke at age 58 or 60 years, who’s going to care for your children when they become adults? Or point out to them that if they don’t take care of themselves, they’re not likely to see their grandchildren. I think this has a potential leverage that no one has systematically studied. My own instincts, based on having been in practice for more than 20 years, is that it is important.

PEREZ-STABLE
The second priority would be to enhance physicians’ and other health care professionals’ understanding of the diversity of the Latino/Hispanic culture. When health care professionals see patients who are immigrants, who don’t speak English well, and who have different beliefs about particular ways of treating a medical problem, it is important that they be culturally sensitive and try to work with the individual in a context that’s respectful and at the same time prioritizes the health care needs. One way to achieve this is to have doctors who work in places like California, Texas, and Florida speak Spanish. Since we know that this is not always going to be possible, it is important that a trained medical interpreter be available. Physicians should not be made to bear the economic burden of this and thus, such a service will need to be adequately reimbursed.

EDITORIAL BOARD
What practical advice can you offer to deal with the “machismo” factor seen in male patients?

PEREZ-STABLE
Is treatment adherence a problem in the female patient as well?

PEREZ-STABLE
In women, I think it is less of a concern because machismo primarily describes the invincible man. My experience in women is that adherence to treatment for a chronic condition such as hypertension is not as big a deal since they are accustomed to the acceptance of preventive care pertaining to pregnancy, maternal care, and Pap smears. I do think, however, that empathy is important in women. If they don’t feel that the physician is listening and paying attention to them when trying to persuade them or get them to follow the plan, they’re less likely to adhere or comply with therapy.

EDITORIAL BOARD
How do you overcome the potential adverse role that alternative medicine may play in the health care of the Hispanic patient?
PEREZ-STABLE
I think that directly educating and confronting the patient about what our scientific, clinical, and epidemiological belief system is in terms of these conditions is effective most of the time. My strategy in dealing with complementary alternative treatments is, if it is not doing harm I tend not to advocate against them. I think in most cases that’s true for adults. There’s very few things that they may be taking that can actually be harmful. Although there are some case reports about some Chinese herbal teas and anticoagulants and things like that, most herbal agents aren’t of major concern provided their expense doesn’t pose a hindrance to the patient from buying or obtaining medical care. Whether one is dealing with hypertension or diabetes, it is important that patients be educated that they have a chronic lifelong condition which, if not adequately controlled, will lead to bad outcomes. In my experience, I think it falls back to really being able to communicate effectively with the patient. Sometimes my patients will test me...they’ll come in and will have stopped their medicine and be on an alternative medicine. When I check their blood pressure and I find that it is high, I say that we’ve got to add another medicine and it’s only then that they tell me about the switch they made.

EDITORIAL BOARD
Please expand on the impact of “simpatia” on health care.

PEREZ-STABLE
Simpatia, which was described by a psychologist colleague at the University of San Francisco years ago, refers to the desire of Hispanics for more positive interpersonal interaction than is the norm in the North American/Anglo American mainstream English language culture. This includes simple things like having some physical contact, either offering a simple handshake when one sees a patient to patting them on the back and not being distant in terms of the patient/doctor interaction. For physicians interacting with their Hispanic patients, although they don’t want to push it to the point of being insincere, it is important they try to be more open with their personalities, charismatic if you will, or at least friendly in a formal way. At the same time, you’re not buddies, you’re still the professional and the patient is still the person who is coming to you because of your expertise and knowledge. Although not mandatory to the provision of good health care, in my heart of hearts, I really believe these are important components that should not be overlooked.

EDITORIAL BOARD
If a trained medical interpreter is not available and one is left with the option of a family member, a Spanish-speaking office worker, or a physician who speaks only enough Spanish to barely communicate at all, which of the 3 is preferred?

PEREZ-STABLE
Let me begin by saying that in the absence of a fluent physician who understands the Hispanic culture, a trained professional interpreter is the gold standard in the health care setting. In the absence of these 2 resources, I think the technical aspects of care can be accomplished very well with any of the 3 options you listed. The problem is that when you’re dealing with a cognitive dysfunction or depression or a social issue, all of those 3 options are wholly inadequate and you really need to have a professional interpreter. Patients pick up when the doctor’s Spanish is limited and if an emotional or social issue is approached, they won’t continue to talk and you’ll miss important things like domestic violence and depression. However, it’s clearly hard to administer a Mini-Mental Status Exam through a nonobjective interpreter. Although it’s difficult to go against having a family member in the room, I think what the physician has to do is sort of pick their moment to say that this isn’t going to be enough, we need some-
one else. If you can't get a trained professional interpreter, it's important to get a more objective colleague or person who is more likely to obtain the full story. In addition to not being trained, an office staff person may be known to the patient since they may live in the same community or may be limited in their Spanish fluency if born in the United States. There is no easy answer. I think what the doctor has to do when their instincts tell them that something else is going on or they worry about these issues that really require more fluency, is figure out a way to secure the services of a trained professional medical interpreter.