Meeting the challenges of treating Hispanics with diabetes

In this issue

- Understanding the prevalence of diabetes among Hispanics
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- Addressing special needs of the elderly
- Managing diabetes with lifestyle changes

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E very 10 years the national health promotion and disease prevention initiative known as Healthy People releases its report. Managed by the Office of Disease Prevention and Health Promotion, U.S. Department of Health and Human Services, this report provides a framework for prevention for the nation. It is a statement of national health objectives designed to identify the most significant preventable threats to health and to establish national goals to reduce these threats.

As the Healthy People 2020 report is disseminated, data regarding the Healthy People 2010 report are being analyzed. According to the 2010 report, life expectancy has improved in the United States. Unfortunately, rates of obesity have not improved. Obesity rates have increased by nearly 70% in young adults ages 20 to 39 years, and by 45% in those older than 60 years. As a result, the U.S. population has an age-adjusted prevalence of diabetes of 59 cases per 1,000 people. This far exceeds the Healthy People goal of 25 cases per 1,000 people. This statistic is even more alarming in minority populations. Minority children account for nearly half of the children in the United States. The Centers for Disease Control and Prevention project that 1 in 3 people who were born in the United States in the year 2000 will eventually develop diabetes. However, this projection is nearly 50% for Hispanic Americans, the fastest growing minority population in the United States.

In this issue of AOA Health Watch, Sonia Rivera-Martinez, DO, provides a comprehensive review of the importance of effective communication with a Hispanic patient whose primary language is not English. She reviews the legal requirements that may affect health care practices, explores cultural influences on physician office encounters and reviews the types of interpreters that are available in this setting.

Gautam J. Desai, DO, and Cassandra N. Ramar, OMS IV, review why diabetes is so common in the Hispanic-American population. The authors also discuss the effect disparities in health play in the diabetes care for this population. Further, they provide strategies physicians can implement into their practices. In addition, Dr. Desai and colleagues review the problems unique to older Hispanic Americans and those cultural issues that are critical to understand when caring for this population.

Finally, Constance Young, our special medical correspondent, interviews Martha Quintana, RN, CD E. Quintana works as a nurse and certified diabetes educator in Watsonville, Calif. She provides care to a largely Mexican-American migrant farm working community. Quintana discusses the challenges and opportunities she faces working in her community.
Partnering to fight chronic disease

Acknowledging that preventable chronic diseases have the ability to paralyze the health care system and break the national budget, the American Osteopathic Association is invested in improving the public health and reducing the burden of these chronic diseases. One manifestation of this commitment is the AOA’s active membership in the Partnership to Fight Chronic Disease (PFCD) since 2007.

The PFCD is a national and state-based coalition of hundreds of provider, patient, community, business and labor groups committed to raising awareness about the leading cause of death, disability, and rising health care costs in the United States—chronic diseases such as diabetes, asthma, cancer and heart disease. In addition, PFCD has worked to ensure that prevention and wellness measures were incorporated into health care reform legislation passed by Congress in 2010. The AOA Health Watch series DOs Against Diabetes promotes the ideals of this partnership. For additional information, visit PFCD at www.fightchronicdisease.org.

Note of thanks

AOA Health Watch thanks the Council on Women’s Health Issues and the Council on Minority Health Issues for helping us identify topics and authors for the series DOs Against Diabetes, which continues through 2011.

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Check it out

Diabetes is so common that it will challenge all physicians in all specialties. Further, the racial disparities have a profound impact on the outcomes and complications for people with diabetes. Knowledge of providing culturally competent care will be essential to changing the course of diabetes in the United States.

For additional information, check out the following websites:

Agency for Healthcare Quality and Research

  The U.S. Department of Health and Human Services, Agency for Healthcare Quality and Research presents a fact sheet on Diabetes Disparities Among Racial and Ethnic Minorities. Results of this research have contributed to a better understanding of the disparities in the prevalence of diabetes and related complications among different racial and ethnic groups. The research identifies some of the barriers to health care that contribute to these disparities and identifies changes that could be made to eliminate barriers and reduce disparities.

- [http://www.ahrq.gov/qual/disparities.htm](http://www.ahrq.gov/qual/disparities.htm)
  The Agency for Healthcare Quality and Research report, Activities to Reduce Racial and Ethnic Disparities in Health Care, describes AHRQ's activities related to racial and ethnic disparities in health care and health care services for the period 2007-2009. The report covers the scope of the problem and recent improvements that have helped to reduce disparities in health care.

CDC

  The Centers for Disease Control and Prevention Office of Minority Health and Health Disparities reports on Eliminating Disparities in Diabetes. The CDC and other public health agencies intend to reduce deaths from diabetes by decreasing the overall rate of complications from diabetes and eventually by eliminating disparities in health care among different groups. The report includes examples of disparities, strategies, goals, programs projects and initiatives.

- [http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5645a2.htm?s_cid=mm5645a2_e](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5645a2.htm?s_cid=mm5645a2_e)
  In another report, the CDC examines Racial Disparities in Diabetes Mortality Among Persons Aged 1-19 Years—United States, 1979-2004. To assess racial disparities in diabetes mortality among youths, CDC analyzed data on deaths with an underlying cause of diabetes among persons aged 1 to 19 years for the period 1979-2004. This report summarizes the results of that analysis, which determined that, during 1979-2004, diabetes death rates for black youths were approximately twice those for white youths.

  CDC’s Project DIRECT (Diabetes Intervention Reaching and Educating Communities Together) is a multi-year community diabetes demonstration project. It is intended to develop, implement and evaluate strategies that can be incorporated into state-based diabetes prevention and control programs nationwide.
Diabetes mellitus is a major challenge for Hispanic Americans, who face a higher prevalence of diabetes mellitus than any other ethnic group except Alaska Natives and African-Americans. Moreover, access to effective “culturally competent” health care has not kept pace with the increasing incidence of diabetes mellitus among Hispanic Americans.
Hispanics are the largest and the fastest-growing minority group in the United States, accounting for about 15% of the country's population. Projections indicate that by 2050, Hispanics will make up 30% of the U.S. population.

The age-adjusted prevalence of type 2 diabetes mellitus in Hispanic Americans is twice that in non-Hispanic white Americans. Currently, 10.4% of Hispanics in the United States are diagnosed as having diabetes mellitus. By 2020, the percentage of Hispanics with diagnosed diabetes mellitus will have increased by an estimated 107%, compared with an estimated increase of 27% for non-Hispanic white Americans.

Furthermore, Hispanic Americans tend to have greater rates of complications from diabetes mellitus compared with non-Hispanic white Americans. For example, glycosylated hemoglobin (HbA1c) levels are consistently higher in Hispanic Americans, as are death rates from complications of diabetes mellitus. Part of the reason for these higher rates may be that Hispanic Americans are less likely to receive preventive health care than are non-Hispanic white Americans—despite recent increases in preventive services received by Americans as a whole.

Another factor contributing to high complication rates among Hispanic Americans is that they are generally at higher risk for renal failure than are non-Hispanic white Americans. Again, this elevated risk among Hispanics is likely related to barriers in obtaining adequate health care, including screenings for renal failure, which is a largely asymptomatic complication of diabetes mellitus.

The percentage of pediatric patients at risk for type 2 diabetes mellitus and cardiovascular disease is increasing in the United States, especially among minority groups. In 2008, 47% of children younger than 5 years in the United States were members of minority groups, with 25% of these children being Hispanic.

In 2007, diabetes mellitus was the sixth-leading cause of death in the United States, as well as the fifth-leading cause of death from disease for Americans. More than $116 billion is spent annually on the direct medical costs of diabetes mellitus in the United States, with another $58 billion spent on indirect costs, including loss of work, disability, and loss of life. The heavy burden of diabetes mellitus needs to be addressed—not only to keep the cost of health care down but also to improve the health of the American population.

Diabetes mellitus prevalence worldwide
Worldwide, more than 220 million people are being treated for diabetes mellitus. Without improved intervention, this number is projected to double by 2030.

When compared with individuals in their countries of origin, Hispanics living in the United States are likely to have higher rates of diabetes mellitus. The prevalence of diabetes mellitus in various groups of Hispanics in the United States is as follows: Cubans, 8.2%; Mexicans, 11.9%; and Puerto Ricans, 12.6%. These differences in the prevalence of diabetes are likely the result of Hispanic Americans adapting to a lifestyle in the United States that includes greater caloric intake and less physical activity.
Factors causing increased incidence of diabetes mellitus
Along with having a higher incidence of diabetes mellitus, Hispanic Americans generally have greater incidence rates of obesity and metabolic syndrome than do non-Hispanic white Americans. A genetic predisposition to type 2 diabetes mellitus among Hispanic Americans is often compounded by poor nutrition and inadequate physical activity in the United States, leading to high rates of metabolic problems. Hispanic Americans are more insulin-resistant than non-Hispanic white Americans, with insulin resistance developing at an earlier age in Hispanic American children than in non-Hispanic white American children.

The primary risk factor for diabetes mellitus is obesity. Almost 80% of the Hispanic population in the United States is obese or overweight. Twenty-nine percent of Mexican American women older than 18 are obese. The rate of obesity among Hispanic American children is twice that of non-Hispanic white American children, and obesity is likely to manifest at a younger age in Hispanic children. Hispanic Americans are more likely than non-Hispanic white Americans to have upper body obesity, which has been linked to multiple health concerns, including insulin resistance and cardiovascular risk.

As previously mentioned, the high rates of obesity among Hispanic Americans may be attributed partly to lifestyle factors, such as improper nutrition, high caloric intake and fat consumption, and inadequate exercise. Many Hispanic Americans have a diet high in carbohydrates and saturated fats. In addition, more than 60% of Hispanic Americans report engaging in little or no physical activity on a daily basis.

Social factors, such as education level and socioeconomic status, have been associated with the development of diabetes mellitus. Higher rates of diabetes mellitus have been observed in patients of lower socioeconomic classes and in patients with lower education levels.

Factors causing disparities in health care
Four main factors may explain the disparities in health care observed in the Hispanic population in the United States—language barriers, cultural barriers, lack of access to preventive care and lack of health insurance.

The language barrier is an ongoing problem across the United States. If Hispanic patients cannot fully communicate with their physicians, they are less likely to follow advice for treatment and lifestyle modifications. The inability to properly communicate may hinder the physician-patient relationship and lead to confusion about the treatment guidance provided by physicians. As a result, patients may be ultimately labeled as “noncompliant” when, in fact, they simply did not understand the original instructions.

Cultural barriers play a large role in disparities in health care among Hispanic Americans. Many Hispanics are not willing to put their medical needs over the needs of their family members. As a consequence, they may delay seeking necessary treatment.

In addition, a preference for more natural remedies or culturally traditional treatments has been observed among Hispanic patients, as has a belief that the disease process cannot be altered because of “destiny” or “fate.” Some Hispanic patients are more likely to rely on family members and folk healers for health advice than they are to seek professional medical advice.

Overall, Hispanic Americans who receive professional care for diabetes mellitus are more likely to be treated with oral agents and less likely to receive insulin than are non-Hispanic Americans. The reasons for this difference are likely to be multifactorial, with some reasons related to the relatively long time necessary to educate patients about insulin treatment. Cultural beliefs may also be responsible for some of this difference. One study found that...
Hispanic Americans are more likely than non-Hispanic white Americans to believe that insulin treatment is linked to blindness or other complications. Such misconceptions underscore the need for physicians to take the time to ensure that their patients accurately grasp the information presented.

Hispanic American patients are two to three times less likely than non-Hispanic white patients to receive HbA1c evaluations during office visits. Glucose self-monitoring is also less common in Hispanic American patients than in non-Hispanic white American patients. This lack of glucose monitoring may be to blame for the greater prevalence of lower limb amputations, retinopathy, blindness, stroke, and end-stage renal disease in Hispanic American patients with diabetes mellitus compared with non-Hispanic white patients.

Access to adequate health care has long been a problem in the Hispanic American community. Limited access to preventive care might be attributed to a lower socioeconomic status, a lack of transportation to and from health care facilities, and isolation from mainstream American culture. In 2008, the median annual income for Hispanic American households was $37,913 compared with $52,029 for non-Hispanic households. A survey conducted in 2007 found that 60% of undocumented Hispanic aliens in the United States lacked health insurance versus 28% of Hispanic citizens or permanent residents. This compares to 17% of the U.S. population that was uninsured for the same survey year.

In addition, many Hispanic American families may not have the financial resources to purchase more than a single motor vehicle. As a result, a large family may need to share one car for work, shopping and all other obligations. A family member may be reluctant to cause problems for other family members by using the family car. Thus, health care visits may be neglected if there are no easy means of transportation.

Guidelines for successful treatment plans

L **Listen** with sympathy and understanding to the patient’s perception of the problem

E **Explain** your perceptions of the problem

A **Acknowledge** and discuss the differences and similarities

R **Recommend** treatment

N **Negotiate** agreement

The most important aspect of developing treatment plans is working with patients to ensure that these plans have a chance of success. This is particularly important with Hispanic American patients because of the previously discussed barriers to treatment faced by these patients. The LEARN model, shown on page 7, is a set of guidelines designed to help health care professionals develop successful treatment plans for multicultural patient populations.

By obtaining patients’ views of their health problem, physicians will be better able to assess their patients’ levels of self-understanding and to determine what, if any, preconceived notions or fears exist.

Self-management education is vital to improve outcomes related to diabetes. The goals of self-management programs are to educate patients about their diseases; to help them modify their behavior, preconceived notions, and attitudes; and to improve their clinical outcomes and overall health. To be effective, these programs must take into account many factors unique to each patient, including cultural values and beliefs, religious beliefs, personal fears, level of family integration and support, education level, health literacy, language, nutritional and activity preferences, views on alternative medicine, and socioeconomic status. Education programs should be culturally appropriate and available in Spanish at a low literacy level. Programs that address some of these factors have been implemented across the United States.

According to a 2007 review of published studies on culturally oriented diabetes mellitus self-management programs for the Latino community, successful programs consistently cover disease education, nutrition, physical activity, hypertension, glucose self-monitoring, kidney-related complications, eye care and foot care. Successful programs are usually available in both English and Spanish, and they are oriented toward patients with lower education levels. In addition, the cultural characteristics of the targeted patient population must be taken into account in program development. For example, in one diabetes mellitus self-management program included in the 2007 review, participants were shown educational videos in the format of telenovelas—Hispanic soap operas—to make learning easier.

Results of most self-management programs covered in the review included decreases in levels of HbA1c and total cholesterol. In the average program, participants met for two hours each week, for a total program length ranging from six weeks to six months. Overall, the more education time provided to patients, the better the outcome.

In a few programs, patients were encouraged to bring their primary support person with them to meetings. This individual might be a family member or a close friend who was willing to participate in the education program with the patient. This option provided further encouragement for patients at home, and it took advantage of the close family ties that are typical for Hispanic Americans.

Often in a Hispanic American community, individuals may make important decisions about health care only after discussing their health problems with others in the community. Thus, good role models in the community can reinforce the need for patients to properly manage diabetes mellitus and other illnesses. Physicians should remember to consider the importance of family and community leaders in encouraging and supporting patients in the Hispanic population.

Lifestyle modification in treatment plans for Hispanic Americans with diabetes mellitus should include moderate weight loss through dietary changes and increased physical activity. Successful dietary programs must have a culturally sensitive and individualized approach. Each patient’s lifestyle, eating habits and weight loss goals need to be taken into account for a dietary plan to be effective.

However, some patients may not be able to afford the dietary changes recommended by physicians. So physicians need to pay attention to the socioeconomic status of patients and recommend programs like Meals on Wheels, to patients who qualify for them. Physicians may also aid patients by referring them to dietitians who are familiar with traditional food preparation.
and who can work with patients to create healthy, inexpensive food plans. If a treatment program is not economically feasible for a patient, it will have little chance of success.

Physical activity as part of treatment plans for Hispanic Americans with diabetes mellitus should be moderate at first. The amount of physical activity should be based on what each patient can tolerate and is actually willing to do. The ultimate goal should be to reach 150 minutes or more of physical activity per week. Exercise and other physical activity have been shown to improve insulin sensitivity, regardless of the amount of weight loss achieved. Although some patients may claim to get enough physical activity at work, it is important for physicians to explain the difference between a labor-intensive job and exercise that is most beneficial to health.

To promote family involvement and support, physicians should encourage patients to play outdoors with their children and to take walks with other relatives—activities that do not require paying fees or gym memberships. In addition, by stressing the stark reality that half of a Hispanic patient’s children are likely to eventually develop diabetes mellitus too, physicians can make use of their patients’ strong sense of family to improve glycemic control in adult patients and to prevent diabetes mellitus in children.2,6

Final notes

The increasing number of patients—especially Hispanic Americans—diagnosed as having diabetes mellitus needs to be addressed. Health care professionals must become familiar with the culture and beliefs of their Hispanic patients. Patient education should be provided during every physician visit. Physicians should try to ensure that families of Hispanic patients with diabetes mellitus are involved in treatment programs whenever possible. Such family involvement has been shown to improve patient outcomes.12

References

A significant proportion of U.S. Hispanic patients being treated for diabetes speak little or no English. In contrast, the majority of clinicians in the United States speak only English. This language gap creates barriers to the delivery of quality health care for Hispanics with limited English proficiency and diabetes. This article discusses a range of practical solutions to bridge the language and cultural barriers and improve outcomes for these patients. While the focus is on Hispanic patients who are being treated for diabetes, the recommendations in this article can apply to other patients with limited English proficiency.
Effective communication throughout a patient encounter is an essential element of providing high-quality health care. Physicians must be able to obtain accurate medical histories and patients need to be able to understand the instructions and treatment options given by their physicians.

Language barriers can contribute to misunderstandings between the involved parties and lead to substandard care. Even when physicians and patients are fluent in the same language, communication can be difficult when discussing sensitive health-related issues. In the case of patients with limited English proficiency (LEP), the critical elements of effective communication become even more difficult to achieve and the consequences of miscommunication are likely to be more severe. In addition, research has shown that effective physician-patient communication improves health care outcomes for LEP patients.

As the prevalence of the foreign-born population in the United States increases, it is becoming more commonplace for physicians to encounter a greater number of LEP patients, particularly those speaking Spanish. Currently, Hispanics constitute the largest minority population in the United States. The U.S. Census Bureau estimates that by the year 2050, the Hispanic population will be 25% of the U.S. population. Type 2 diabetes disproportionately affects Hispanics in the United States. It is estimated that 10.4% of Hispanics 20 years or older have diabetes; in contrast, 6.6% of non-Hispanic whites have diabetes. Hispanics have the highest lifetime risk of developing diabetes—45.4%, compared with non-Hispanic whites—26.7%.

According to the 2000 U.S. Census, 18% of persons aged 5 years or older spoke a language other than English at home, with Spanish being the predominant non-English language for 28.1 million members of the U.S. population. Of those persons reporting Spanish as the language spoken at home, 28.1% reported speaking English less than very well.

Legal rights to language access

The legal basis for patients’ rights to language access lies within Title VI of the 1964 Civil Rights Act, which protects against discrimination on the basis of race, color, or national origin. The U.S. Supreme Court in its rulings has considered discrimination based on language the same as discrimination against national origin. Title VI of the Civil Rights Act requires health care professionals and organizations to provide interpretation or translation services to enable LEP patients to have access to health care services that is equal to the access of English-speaking patients. The legal responsibilities apply to any recipient of federal funding (ie, grants, Medicaid, Medicare, other) regardless of whether the funds were received directly or indirectly (eg, subcontract).

Title VI protections extend to all of the operations of an individual or organization, not just the portion that received the federal funds—and it applies without regard to the amount of funds received. Moreover, language access services must be provided to all of the patients of an individual health care professional or an organization once they accept federal funds. Additionally, the language interpreters must be competent, though not necessarily certified, and the interpretation services must be provided at no cost to LEP patients.

Notwithstanding the federal legal requirements, the reality is that many health care professionals are not making language access services available for their LEP patients. The reasons for the noncompliance with language access services range from lack of knowledge of their legal responsibilities and inconsistent enforcement of these laws, to the cost of providing language interpretation services. Regrettably, thousands of LEP patients continue to encounter language barriers when attempting to access health care services, despite the provisions in Title VI.

Language barriers

It has been reported that linguistic barriers are a cause of decreased access to healthcare services, decreased preventive care screening, decreased medical comprehension, increased risk of adverse medication reactions, decreased patient recall, decreased patient satisfaction and decreased question-asking behavior for Hispanic LEP patients. In fact, a study of Hispanic subjects found that the primary language (Spanish) was more strongly correlated with decreased health and quality of care than was the income level. A study by Flores and colleagues showed that language barriers can play a significant role in medical mistakes.

Similarly, language barriers can introduce difficulties in the management of chronic diseases such as diabetes. Studies have shown that Spanish-speaking patients have limited understanding of diabetes as a disease entity and of its long-term effects.
These patients are less likely to be taking insulin, less likely to practice self-monitoring of blood glucose levels, less likely to identify normal glucose levels, less likely to be familiar with the term A1C, less likely than English-speaking patients to receive written materials and more likely to be non-adherent.\textsuperscript{12-16} Furthermore, in a survey of diabetic patients, 33% of Spanish-speaking respondents described having problems with understanding and communicating with their physicians and difficulty understanding their prescriptions, compared to 16% of English-speaking respondents.\textsuperscript{14}

E amranond and colleagues studied the correlation between language and cardiovascular risk factors. They reported that Hispanic patients with diabetes who spoke Spanish at home were more likely to have elevated fasting blood glucose than were Hispanic patients who spoke English at home.\textsuperscript{17} Another study revealed that diabetic patients with LEP were significantly more likely to report suboptimal clinician-patient interactions—physicians not understanding their problems, physicians not explaining, lack of confidence or trust in their physicians, physicians not showing respect, patients treated poorly because of language barriers—than English-proficient patients.\textsuperscript{18} M oreover, the suboptimal reports were more common with language-discordant physicians (ie, physician and patient speak different languages) than with language-concordant physicians.\textsuperscript{18}

The study results described above clearly demonstrate the need to bridge the language gap with LEP patients. In addition to language, consideration must be given to cultural values. In the same way that language barriers reduce the likelihood that a LEP patient will seek health care services, cultural differences often translate into cultural barriers that diminish effective communication, resulting in the same reduced access to health care.

Cultural barriers
The Hispanic community is rich in cultural traditions, beliefs and values. These cultural values can act as barriers to the health care of Hispanic patients. Moreover, fluency in Spanish and cultural competence by health care professionals are independently associated with greater ability to elicit and respond to patients’ concerns.\textsuperscript{19} It is important to recognize these cultural values to ensure a positive physician-patient relationship and to avoid unnecessary conflicts.

Ultimately, the outcomes for Hispanic patients can be enhanced with culturally competent care.\textsuperscript{12,20} However, while these cultural values may play a significant role, they should not be expected to apply to the same degree nor have the same effect on all of the individuals within the Hispanic community. The most representative of these values are familismo, fatalismo, personalismo, respeto and simpatia. See Table 1.\textsuperscript{12,20,21}

Overcoming both language and cultural barriers has had a positive effect in the primary care of Spanish-speaking patients.\textsuperscript{19} Clinicians can avoid the pitfalls of these barriers and be effective in their communications with Hispanic patients by providing appropriate responses to these cultural values and providing interpretation services when needed.

Bridging the language gap
M ultiple methods are available for overcoming language barriers that affect access to health care. Some of these options include bilingual and bicultural professionals, bilingual staff and trained interpreters—staff interpreters, telephone interpreters, remote-simultaneous interpreters, community volunteer interpreters and adhoc interpreters.

Bilingual-bicultural professionals are considered the ideal interpreters since they are fluent in both the patient’s language and the patient’s culture.\textsuperscript{22} Logically, being able to speak to LEP patients in their language is a critical step toward establishing communication, but this does not take into account the cultural aspects of communication that may require interpretation.

Hispanic health care professionals who have cultural backgrounds that are similar to those of their patients are more likely to recognize and readily address any cultural value that may interfere with communication. The second best interpreters are the bilingual professionals, as they are able to communicate directly with patients. It is recommended that both bilingual-bicultural and bilingual professionals complete an interpreter-training program to optimize their effectiveness and to nullify any overestimation of their abilities as an interpreter.\textsuperscript{11} The study by Perez-Stable and colleagues shows the positive effect on health care outcomes when LEP patients with diabetes or hypertension have language concordant physicians.\textsuperscript{4}

Unfortunately, there are relatively few bilingual-bicultural and bilingual professionals to meet the needs of the growing number of LEP patients in the United States.

LEP patients are most commonly cared for by physicians or other health care professionals who speak only English. Typically, language-discordant professionals will use some form of interpreter services. There are advantages and disadvantages of utilizing the different types of interpreters.
The cost of providing these interpretation services differs depending upon the types of services provided.\textsuperscript{23,24} Adhoc interpreters are usually the patient’s family members or friends. In many cases the patient’s children serve as interpreters. These interpreters are readily available, as they frequently accompany the patient to their medical encounter. However, while family members and friends can help support patients during appointments, they are rarely trained in medical interpretation. In such cases, confidentiality may be difficult to maintain and the discussion may be embarrassing for both the patient and interpreter. The quality of the interpretation is often inadequate, the meaning is edited inappropriately by the interpreter and commonly information is omitted.\textsuperscript{23} This interpretation inadequacy can lead to misunderstandings and misdiagnoses, even more so in the case of children as interpreters due to their limited vocabulary.\textsuperscript{11,23,25} Indeed, Flores and colleagues reported most errors in medical interpretation are committed by

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<thead>
<tr>
<th>Table 1: Hispanic cultural values, their impact on physician-patient relationship and suggestions to overcome them</th>
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<tbody>
<tr>
<td><strong>Term</strong> (Definition)</td>
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<tr>
<td><strong>Familismo</strong> (social structure in which the needs of the family as a group supersedes the needs of the individual)</td>
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<td><strong>Fatalismo</strong> (belief that individuals cannot change his/her fate)</td>
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<td><strong>Personalismo</strong> (formal friendliness)</td>
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<td><strong>Respeto</strong> (Respect)</td>
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<td><strong>Simpatia</strong> (kindness, politeness and pleasantness in the face of a stressful situation)</td>
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### Table 2: Types of Interpretation Services—Advantages and Disadvantages

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<th>Type of service</th>
<th>Advantages</th>
<th>Disadvantages</th>
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<tr>
<td><strong>Ad-hoc interpreters</strong> (patient’s family member, child or friend)</td>
<td>- Readily available</td>
<td>- Interpretation may be inadequate</td>
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<td></td>
<td>- Free</td>
<td>- Confidentiality is difficult to maintain</td>
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<td>- Patient may trust the person</td>
<td>- Patients may withhold sensitive information</td>
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<td>- Conflicts of interest may arise</td>
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<td>- May omit important information</td>
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<td>- May edit patient’s or physician’s statements</td>
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<td>- Usually not trained in medical terminology</td>
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<td>- A patient’s child may be embarrassed or too young to understand</td>
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<td><strong>Community volunteer interpreters</strong></td>
<td>- Usually understands culture</td>
<td>- Confidentiality may be a problem</td>
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<td>- Free</td>
<td>- Interpretation may be inadequate</td>
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<td><strong>Bilingual Staff</strong></td>
<td>- Knows healthcare team well</td>
<td>- Usually not trained in medical terminology</td>
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<td>- Likely familiar with terminology in the practitioner’s field</td>
<td>- M ay not be truly fluent in the patient’s language (false fluency)</td>
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<td>- Viewed as trustworthy by the patients</td>
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<td><strong>Telephone Interpreters</strong></td>
<td>- Readily available</td>
<td>- Interruption of regular duties</td>
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<td>- Provides services for multiple languages</td>
<td>- Availability inconsistent</td>
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<td>- Usually little or no training in medical interpretation</td>
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<td>- M ay not be truly fluent in the patient’s language (false fluency)</td>
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<td><strong>Remote-simultaneous interpretation</strong></td>
<td>- Fewer errors</td>
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<td></td>
<td>- Provides services for multiple languages</td>
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<tr>
<td><strong>Contracted Interpreters</strong></td>
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<td>- Costly</td>
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<td>- M isses visual cues (facial expressions, gestures)</td>
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<td>- N o national standards for interpreter competency</td>
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<td>- Encounter may take longer time</td>
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<td><strong>Bilingual/bicultural or Bilingual health care professionals</strong></td>
<td>- Ideal interpreter</td>
<td>- Available number of these health care professionals are not sufficient to meet the needs of LEP patients</td>
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<td>- Knowledgeable of both language and culture of the patient’s</td>
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ad-hoc interpreters and are more likely to have impending clinical consequences compared with errors committed by trained hospital interpreters. Nevertheless, Kuo and Fagan found that Hispanic patients had high levels of patient satisfaction and comfort when their family members or friends were used as interpreters. Conversely, experts in medical communication recommend using ad-hoc interpreters only as a last resort and discontinuing the use of children as interpreters altogether.

Community volunteer interpreters usually have an adequate understanding of the patient’s cultural values because they may come from the same background. Like ad-hoc interpreters, these volunteer interpreters are unlikely to have been trained in medical terminology, and for that reason the quality of interpretation can be less than ideal. In addition, depending on the size of the community, confidentiality can also be difficult to achieve and maintain. Nevertheless, if they are properly trained in medical interpretation, community volunteer interpreters can be useful, particularly for languages that are less commonly encountered.

Bilingual staff members are often knowledgeable when it comes to medical terminology, but generally are similar to ad-hoc interpreters because both lack training in language interpretation. They are inconsistently available, since they often juggle serving as interpreters along with their usual work duties. Yet, if they are trained as medical interpreters and their language abilities are tested, they can certainly be a valuable resource for the LEP patients and their health care professionals.

Telephone interpreters can generally be reached any time of day or night. Typically, they provide interpretive services in multiple languages, which is useful for practices with a multilingual practice base. However, since there are no established national standards, the competency of these interpreters may vary widely. In addition, since the interpreters are in remote locations, they are unable to take into account visual cues such as facial expressions or gestures. Nonetheless, a study by Lee and colleagues showed that Spanish-speaking patients were satisfied with their care to the same degree when telephone interpretation was used as when seeing language-concordant physicians. In contrast, they were less satisfied with their care when using family members or ad-hoc interpreters.

Remote-simultaneous medical interpretation organizations are similar to telephone language lines in that they are able to provide services in multiple languages with interpreters in remote locations. In simultaneous interpreting, interpretation takes place at the same time as the interpreter is hearing the original speech. Conversely, interpreting services by a language line occurs only after the speaker has completed speaking and entails the need for a pause for the interpreter. In their study, Gany and colleagues found that remote-simultaneous medical interpretation improved patient satisfaction and privacy among LEP patients as compared to usual and customary interpreting. It should be noted that the inability to take into account visual cues during interpretation applies to this type of service as it does with telephone interpretation.

Contracted interpreters are professional interpreters who have received training in medical concepts and terminology, confidentiality, cultural issues, and communication and interpretive skills. They usually provide services through an agency, community colleges or social service programs or on a freelance basis. The competency of these interpreters varies widely, as it does for telephone and remote-simultaneous medical interpreters. The interpreters deliver their services while present in the room with the physician and the patient. Delays in service may occur if the interpreter needs to travel. Karliner and colleagues studied the impact of using professional interpreters for LEP patients upon clinical care. They found that professional interpreters are associated with improved clinical outcomes, improved communication and patient satisfaction with their care as compared to ad-hoc interpreters. Additionally,
they showed that the quality of care for LEP patients approaches that of patients without language barriers when professional medical interpreters are used.28

Providing appropriate interpreter services for LEP Hispanic patients with diabetes improves not only communication during physician-patient interactions, but also their clinical outcomes.2,22,26,28,29

**Bridging cultural barriers**

Proficiency in a language does not equate to cultural familiarity and competence. Further, fluency in Spanish and cultural competency have been shown to be independently associated with the following:

- a greater ability to elicit and respond to patients’ concerns and problems.
- discussion of diagnosis, prognosis and treatment options.
- significant improvement in dietary and diabetes self-care-related knowledge.
- improved patients’ assessments of interpersonal care processes for Hispanic patients with diabetes.19,30

Use of a culturally appropriate diabetes self-care education program for Spanish-speaking patients demonstrated improved knowledge scores, improved lipid profiles and reductions in A1C levels.30-32

Family involvement (familismo) in decision making is particularly important to the Hispanic population. Physicians and other health care professionals can improve care for diabetic Hispanic patients by encouraging them to invite their family members to their visits. Physicians should prompt family members to ask questions and participate in discussions about treatment options.12,20,21

Clinicians may counter the adverse consequences of fatalismo—avoiding preventive healthcare services and effective treatment options—by emphasizing the importance of preventive care. In addition, the efficacy of medication, including insulin in the treatment of chronic diseases such as diabetes, should be discussed. Physicians practicing culturally competent care may use their cultural beliefs to promote healthy lifestyles and acceptance of treatment (eg, “take care of yourself so you can be there for your family”).12,20,21

An easy and effective way for physicians to personalize their approach (personalismo) is by decreasing the physical distance between themselves and their patients during office encounters. Increasing socially appropriate physical contact, providing a business card and routinely demonstrating interest in the patient’s personal life—work, school and family—are all positive approaches physicians can take to enhance patient visits.12,20,21

Demonstrating respeto for Hispanic patients entails being formal during any verbal exchange, particularly in a first encounter. Physicians can relay respect to Hispanic patients by addressing them as “M. r.” or “M. r.s.” or “M. s.” instead of using their first names. When speaking in Spanish it is recommended that usted be used, which is the formal term for you in Spanish, instead of using the informal term.12,20,21

Addressing the cultural value of simpatia requires health care professionals to have a positive attitude and place special emphasis on being courteous and pleasant.12,20,21 Lastly, communicating effectively with Hispanic patients being treated for diabetes involves providing culturally appropriate care and responding appropriately to their cultural values.19,30-32

**Recommendations for using medical interpreters**

There are multiple suggestions that may help clinicians facilitate the process of using trained medical interpreters in their practices while improving access to these services for their LEP patients. Following are some helpful suggestions:33

1. **Instructions for identifying patients in need of interpretation services**

- Ask patients which language they prefer to be used during their visits.
- Flag the patient’s chart regarding language preferences.
- Post signs and provide forms and educational materials in the most common non-English languages encountered in your practice.
- Provide lists of medications and instructions in the patient’s language of preference.

2. **Instructions for clinicians**

- Save time by preparing in advance questions to be addressed during the encounter.
- Develop interpreter-physician action plans for each patient encounter.
- Maintain eye contact and speak directly with the patient.
- Speak in standard language using straightforward sentences.
- Ask one question at a time.
- Avoid interrupting the interpretation.
- Improve bilingual staff interpretation skills by providing access to ongoing interpreter training.

3. **Instructions to be given to the interpreters**

- Use the universal form of the language, and avoid use of regional words.
- Discuss your confidentiality policies with the interpreter.
- Provide any necessary patient background to the interpreter, particularly if using telephone or remote-simultaneous medical interpretation.
- Introduce the interpreter to the patient.
Remind the interpreter that everything interpreted during the patient encounter and all information discussed must be kept confidential.

Ask the interpreter to speak in first person when speaking to either the patient or the clinician.

Instruct the interpreter to translate everything stated in the presence of the patient.

**Financing interpreter services**

A variety of affordable resources are offered to provide language interpretation services. The availability of these resources varies depending on community and state reimbursement policies; that are in place.34

Multiple states avail themselves of federal matching funds through Medicaid and State Children’s Health Insurance Program, or SCHIP, to reimburse interpretation services. Other states contract directly with interpreter organizations.

Several managed care organizations reimburse physicians for using interpretation services. In addition, local hospitals that provide interpretation services have offered discounted services to physicians in their area.

**To help address interpreter services, physicians should:**

- Develop collaborative contracts with other physicians to obtain discounted services for using telephone or remote-simultaneous medical interpretation.

- Investigate if there are any not-for-profit or charitable organizations in your region that provide medical interpretation services.

- Contact local colleges or other community organizations for possible volunteer interpreters who can work under direct supervision of the clinician. In exchange for service commitment, offer medical interpretation training.

**Table 3**

**Internet Resources—Information on interpretation services and cultural diversity**

**Interpretation services**

- International Medical Interpreters Association — http://www.imiaiweb.org/default.asp
- Language Line Services — http://www.languageline.com
- 1-800-Translate — http://www.1-800-translate.com/medical.html

**Cultural Diversity**

- Diversity Rx — http://www.diversityrx.org/
- Cross Cultural Health Program — http://www.xculture.org/
- EthnoMed — http://ethnomed.org/culture
- National Center for Cultural Competence — http://nccc.georgetown.edu/index.html
- Office of Minority Health — http://minorityhealth.hhs.gov/

_Final notes_

Currently, Hispanics are the fastest growing minority population in the United States. Diabetes affects this group in a disproportionate manner. Language and cultural barriers often lead to poor health care outcomes for U.S. Hispanics.

Professionally trained medical interpreters have been shown to improve effective communication between clinicians and LEP patients and improve the clinical outcomes.

In addition, U.S. laws have established the legal and ethical obligations of health care professionals and organizations to offer language-interpretation services to LEP patients. Health care professionals can ensure that this population obtains high-quality health care by addressing the barriers to health promotion and disease prevention with the assistance of trained interpretation services and culturally competent care.
References


The Hispanic American population faces a major health burden in diabetes mellitus—a burden that is much greater than that faced by non-Hispanic white Americans. Hispanic American adults are 1.7 times more likely than non-Hispanic white American adults to have been diagnosed as having diabetes mellitus, and Hispanic Americans are about 1.5 times more likely to die of diabetes mellitus than are non-Hispanic white American people.

Diabetes mellitus is the fifth leading cause of death among the Hispanic population residing in the United States, as well as a leading factor in many of the ensuing complications.

Gautam J. Desai, DO, Cassandra N. Ramar, OMS IV, and George P. Kolo, DO

Help for elderly Hispanic patients in managing diabetes mellitus: A practical approach
The risk of diabetes mellitus and its complications increases with age. As the elderly population in the United States increases in number, diabetes mellitus will continue to grow as a public health problem. This situation will be a challenge for osteopathic physicians who care for patients in their offices and for specialists who handle the complications of poorly controlled diabetes mellitus, such as strokes, heart disease, blindness, renal failure and amputations.

Some osteopathic physicians who have seen complications of diabetes mellitus may not be fully aware of ways to prevent these problems. The present article focuses on practical lifestyle modifications that would help elderly Hispanic patients manage diabetes mellitus.

**Education**

One powerful tool that can assist osteopathic physicians in the fight against diabetes mellitus is education. By educating themselves about cultural differences and about resources that can help their patients, osteopathic physicians will be better able to serve the Hispanic population—the fastest growing minority population in the United States.

In addition, education of patients will likely be effective in reducing complications of diabetes mellitus. Hispanic Americans who have college degrees are less likely (7%) to receive a diagnosis of diabetes mellitus than their counterparts who did not complete high school (11.8%). Although osteopathic physicians may not be able to assist in the formal education of their patients, they can use osteopathic medical philosophy by taking into account each patient's unique personal situation and by addressing more than just the physical health of patients—as the tenets of osteopathic medicine demand.

To educate their elderly Hispanic American patients about diabetes mellitus, osteopathic physicians must first assess each patient's baseline knowledge, beliefs and fears. Because a patient's ideas about a disease may vary based on several factors besides education—including extent of assimilation into U.S. culture, ethnic subgroup, socioeconomic status and influence of family, friends and community leaders—osteopathic physicians need to take these factors into account. A useful reference for physicians is Kleinman's "Tool to Elicit Health Beliefs in Clinical Encounters" (Figure 1). By using this tool, osteopathic physicians will avoid the trap of assuming that all patients of a shared ethnicity or culture will have similar beliefs and ideas about diabetes mellitus.

Osteopathic physicians should also be aware that for many elderly Hispanic patients, especially those who have recently immigrated to the United States, English may not be the primary language. Hence, bilingual materials may be crucial to successful patient education. Some patients may not reveal their illiteracy to physicians unless asked, and they may prefer to refer to their own resources for health information. AOA Health Watch column In This Corner on page 28 contains 12 culturally sensitive tips that physicians can use to educate patients about diabetes mellitus (such as patient handouts), including a National Institute of Aging toll-free telephone number that patients can call for information about diabetes mellitus. Using illustrations or pictures in handouts may improve the learning of patients. It is important to keep in mind that patients may have difficulties in obtaining quality health care unless they speak English.

**Diet and exercise**

Elderly Hispanic American patients may be reluctant to purchase food items that are expensive and unfamiliar. Often, foods that are prevalent in the Hispanic culture are prepared in unhealthy, traditional manners, such as by frying and by using lard as a cooking agent. In addition, a patient with limited resources may find it easier to purchase readily available, inexpensive food from a fast-food restaurant than to prepare a healthy home-cooked meal. Educating patients about the relative glycemic indices of various foods may be helpful, because patients often base food preferences on taste rather than health information.

Another potential barrier to obtaining access to health care is transportation, especially for those Hispanic Americans who live in rural areas that are distant from a physician's office and not easily accessible by public transportation. Often, several family members may share one automobile for all of their needs, including school, employment and health care. Older family members may be loath to place their medical needs ahead of the needs of others in the family, especially if it means a family member would be unable to go to work if the automobile was used to take a patient to a medical appointment.

Even if public transportation is available, the language barrier may again play a role by increasing a patient's reluctance to deal with the intricacies of travel. Osteopathic physicians should ask the patient about such potential challenges and be sympathetic to such concerns, instead of assuming that the patient has missed an appointment for other reasons. Patients should be made aware of possible programs that may be available to provide transportation assistance for senior citizens and patients with diabetes mellitus.

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persuading a patient’s family members to attend diabetes education classes, physicians can help these family members learn how to encourage patients to make changes in diet. Ultimately, family-based diabetes education not only can help adults with diabetes mellitus, but may also help prevent the development of diabetes mellitus in younger family members who are at risk.

The Behavioral Risk Factor Surveillance System Survey of adults compared various races and ethnicities of people in the United States with regard to regular physical activity and the Healthy People 2010 goals. This survey showed that between 2001 and 2005, Hispanic men—the least likely demographic group to regularly exercise—were the only group to experience a decline in exercise rate. Hispanic women did better than Hispanic men in this survey, demonstrating an improvement in exercise rate during the analyzed time interval. Elderly survey participants (age 65 years), both men and women, were the least likely to achieve exercise goals.

As any practicing osteopathic physician knows, many patients present barriers when asked to exercise, claiming that their daily activities provide sufficient exercise. Patients with limited resources may find it difficult to take time off from work or household duties to perform exercise. Elderly Hispanic Americans may feel unsafe exercising in their neighborhoods, or they may not understand the value of exercise for a disease that they do not understand. Older Hispanic Americans are often advised by their family members to “take it easy” and relax, after being reminded that they have spent a lifetime working hard to provide for their families.

Osteopathic physicians can assist patients by working with their families to develop realistic lifestyle modification plans that are also enjoyable. Consideration should be given to plans that combine recreation with exercise, such as accompanying grandchildren to play sports. The value of exercise can be reinforced by introducing patients to statistics indicating that diabetes mellitus will develop in one out of every two Hispanic Americans born in the year 2000. Exercise can help prevent this disease, and exercise with family members takes advantage of the strong sense of family in Hispanic culture.

Cultural beliefs and practices
The use of Kleinman’s tool (Figure 1) to elicit beliefs of patients will help osteopathic physicians understand patients’ views and attitudes about their diagnoses, and this understanding will influence patients’ treatment plans. Many elderly Hispanic American patients may feel that their health may be out of their control and in the hands of a “higher being,” resulting in a fatalistic viewpoint toward their diabetes mellitus.

Similarly, espiritismo is the belief in the existence of malevolent and benevolent spiritual beings who may be able to negatively or positively influence the health of material beings. Presentismo refers to the belief that only issues that are an immediate problem should be dealt with—a belief that may cause some patients to delay seeking treatment for their diabetes mellitus until after complications have developed.

Jerarquismo refers to the interplay of family members in the social structure of Hispanic culture, which is a predominantly patriarchal society. Hence, younger family members may be reluctant to “interfere” in the health care decisions of older adult family members—especially men—unless asked to help by the patient. However, osteopathic physicians can assist younger family members in expressing their views during patient visits, thereby encouraging healthy family behaviors.

It is important for osteopathic physicians to keep in mind that elderly Hispanic American patients may be more likely to take the advice of respected community members than the advice of their physicians. This tendency can be exploited by the physician to help the patient. Studies have shown that the use of trained lay persons, called promotores, can assist Hispanic patients in navigating the complexities of the health care arena, including becoming familiar with the availability of health care resources in the community.

Hispanic Americans may be more likely than the U.S. population as a whole to use, and to place faith in, herbal preparations. According to a recent survey of 142 Hispanics in southern Florida, 75% of respondents reported using herbal products. According to the National Health Interview Survey of the U.S. population who stated in the 2002 National Health Interview Survey they had used herbal products within the previous 12 months. This rate compares to a rate of approximately 19% of the general U.S. population who stated in the 2002 National Health Interview Survey they had used herbal products before prescribing traditional medications and of being aware of...
potential interactions between the two.

Coupled with the preference of some Hispanic Americans for the traditional preparations of their ancestral countries is a fear of the use of insulin therapy. The belief that insulin can cause blindness or other complications of diabetes mellitus may have its origin in the fact that insulin is often used in patients with advanced diabetes mellitus or with decreased β-cell functioning who are more likely to experience complications.

**Special considerations for elderly patients**

Another useful tool for osteopathic physicians is the incorporation of personalismo (a warm, friendly relationship) in the physician-patient relationship. For example, learning a few phrases in Spanish will allow physicians to help Hispanic patients feel more comfortable. Non-Hispanic physicians can help their elderly Hispanic patients feel more at ease by following basic communication skills during office visits and by demonstrating basic respect for the patients. By taking the time to inquire about the patient’s family members and the patient’s life and by following the osteopathic philosophy of getting to know the patient as a whole, osteopathic physicians will go a great way toward establishing rapport and strengthening the bond between patient and physician.

Taking into consideration the strong Hispanic sense of family (familismo) can assist both the osteopathic physician and the elderly Hispanic patient in achieving goals for disease management.

Physicians can remind elderly patients about how they can serve as good role models for younger members of their households (eg, through improvements in diet and exercise and use of preventive care), thereby decreasing the chance that diabetes mellitus will develop in younger family members. Familismo may motivate elderly Hispanic patients to do things that will improve the health of the entire family structure, as well as themselves. The osteopathic physician is likely to find familismo to be a powerful tool for change.

**Final notes**

Elderly Hispanic patients may feel alienated and lost in the maze of the U.S. health care system, and they may feel especially fearful if they are uninsured. By taking the time to develop a warm and friendly environment in the office and to get to know patients as individuals, osteopathic physicians are likely to achieve greater success in the treatment of elderly Hispanic patients with diabetes mellitus. A little bit of “culturally competent” care will go a long way toward establishing trust and avoiding complications of diabetes mellitus.

**References**

Understanding special needs of Hispanics with diabetes: An interview with a diabetes educator

According to a 2006 survey conducted by the Office of Minority Health, U.S. Department of Health and Human Services, Mexican Americans were found to be almost twice as likely as non-Hispanic white Americans to be diagnosed with diabetes by a physician. Mexican Americans also had higher rates of end-stage renal disease, caused by diabetes, and were 50% more likely to die from diabetes as non-Hispanic whites.
To help physicians better understand and address the high rate of diabetes among Hispanics, AOA Health Watch spoke to diabetes educator Martha Quintana, RN, CDE, to find out how she manages her Hispanic patients with diabetes, who account for roughly 70% of her patient population. In addition, we asked what advice she could offer DOs who are less familiar with this population. Quintana works for the Diabetes Health Center (DHC) operated by the Pajaro Valley Community Health Trust in Watsonville, Calif. The DHC and the Health Trust are located in space they lease on the campus of Watsonville Community Hospital. It is in a rural community in central California where agriculture is the major employer.

What special struggles do Hispanics with diabetes face?

Quintana: Hispanics in this country face many challenges. In my program, a major challenge is that many of my Hispanic patients are uninsured. Since we are located in an agricultural area, many patients are low-paid year-round farm workers and migrant farm workers, so lack of money is a major factor making it difficult for them to get the care they need.

As we know, diabetes is an expensive condition even for patients with insurance. Co-pays can add up, and monthly medications easily cost a couple of hundred dollars. For example, pioglitazone costs about $150 per month without insurance. Insulin is also expensive, although some pharmaceutical companies have patient assistance programs that provide insulin at reduced rates for special-needs patients.

To address the problem of cost, patients sometimes are forced to make medication choices based on cost. For example, they might say that because their blood pressure appears to be doing well for the time being, they either won’t buy a prescribed blood pressure drug in order to afford their diabetes medication or they just won’t take the prescribed drug so they can afford other medications.

At our facility, we use a sliding scale based on income to determine the charge for a patient visit. If patients are able to afford the visit, our first consult takes one hour and usually costs $120. However, based on what people earn in this area, most patients pay about $25 a visit. For those who cannot afford the $25 fee, we offer some grants and scholarships to offset the cost of visits. We are not-for-profit; therefore to keep our doors open we depend largely on grants and fundraising. We don’t get any federal money.

Because many Hispanics in this area do not speak English well, or don’t speak it at all, they are not familiar with the health care system or for various reasons they do not trust the system. This is particularly true for people who are not here legally and are afraid they will be deported, so they wait until the very last minute to seek treatment.

Also, a lot of our population has low literacy because they may not have the opportunity to go to school to learn to read. In light of this, health care professionals can’t simply give out educational materials without assessing whether a patient can read.

Cultural factors are also important. Many Hispanics, for example, tend to favor alternative health methods such as homeopathy and herbal treatments. They consider these approaches “more natural” but are unaware of the challenges they can pose for health care professionals.

What alternative care treatments do your patients choose or prefer?

Quintana: Herbs are particularly popular. Some patients even return to Mexico to see an herbalist, and some even stop taking prescribed medications and switch to herbal remedies instead. Others might take both without telling their physicians.

Another popular remedy is nopales, which is a cactus extract that is a big part of a Mexican cultural diet. There is a belief that nopales has glucose-lowering properties.

Cinnamon has been studied and results have shown that it has a positive effect on blood sugar levels. I tell patients, however, that potential benefits of ingesting cinnamon may not be enough to stabilize blood sugar levels, especially if their levels are high.

Obviously it is important for health care professionals to find out if their Hispanic patients are taking herbs, cactus extract or other alternative treatments and to make sure that these substances don’t interact with their prescribed medications.

All of these factors have to be incorporated into the patient’s management information. We have to tell patients not to stop taking their medications, and explain that diabetes is a complicated condition and cannot be managed with one mode of treatment. Usually more than one medication is needed to achieve control of a patient’s sugar levels; one herb or medication by itself will not control the blood sugar levels.

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Most importantly, health care providers must try to understand the patients' cultural background and the role it plays in their lives. It is not uncommon for doctors to tell patients that they can't eat traditional Mexican foods because they cause weight gain, diabetes, or other health problems. However, it is important to remember that these patients have not been taught otherwise in their own culture. It is the responsibility of the doctor to help the patient understand their condition and how to manage it. This may involve teaching the patient about cultural foods and how they can be incorporated into a healthy diet. It is also important to provide information about low-cost prescription drugs and how to access them. A problem that many diabetic patients have is that they do not qualify for drug-assistance programs because they are considered to have insurance, even though it is no longer covering their medication.

When we teach patients about lifestyle changes that they can make at home and how to manage their condition, we stress that if they make these changes they might lower their health care costs in the long run. We also teach them that if they can keep their blood sugar, lipid levels and blood pressure under control, they can reduce complications and reduce the number of visits to the emergency department.

To help Hispanic patients make good choices, we have to keep cultural factors in mind. Many Hispanic patients with diabetes have been told that they can’t have tortillas and rice and beans anymore. In fact, one physician I know told a patient to “do away with the Mexican diet. It’s not healthy.” This I consider to be “old school,” dating back to when we had a “diabetes diet,” which we don’t have anymore. Not only are these statements untrue, but there are adjustments that people can make in any diet to improve their health. For example, patients can reduce portions of corn tortillas or substitute wheat tortillas for flour tortillas.

When people don’t have enough money to pay for food, they might skip meals. We encourage patients to not skip meals and provide information about food banks and pantries. Conversely, though, we also encourage patients to monitor the size of their portions at meals.

What one thing can help a Hispanic patient with diabetes become more successful in managing the condition?

Quintana: Empowerment—giving them the information. When I first started this program about 12 years ago, some physicians had a fatalistic attitude toward “these people,” a loaded phrase that I don’t like to use. They would say, “These people don’t care, are noncompliant and don’t want to learn.” I find none of this to be true. Many Hispanic patients are very eager for guidance and information. As providers, we get more respect and “buy-in” if we honor our patients’ cultures and customs. In my case it helps that I am bilingual and bicultural, which raises their trust level to some extent. Although I was born in this country, I was raised with many Mexican cultural customs. I grew up on a Mexican diet, but I enjoy the foods of all cultures.

What are your recommendations for health care professionals who may be less knowledgeable about Hispanic culture and heritage when addressing these patients and trying to help them address their diabetes mellitus?

Quintana: Most importantly, health care professionals should not dismiss their patients’ cultural beliefs and customs but rather should try to incorporate them into the treatment. For example, we should explain why insulin doesn’t cause blindness instead of just dismissing their concerns and not taking the time to explain. A recent article in the April 2010 issue of Diabetes Care “Barriers to Insulin Administration” (Volume 33, Number 4, 2010 page 733-735), supports this line of thinking.

With respect to cultural diets, there are different programs, resources and tools are available to help with the transition. For example, the Más que comida, es vida (It’s more than food, it’s life) program [see Resources] provides new tools for Hispanics to prepare traditional foods in a more healthy way.

Many of the patients you care for are migrant workers. How does this affect their perception of the disease, their interface with the U.S. healthcare system and their thoughts about differences between treatments for this disease at home and in the United States?

Quintana: Because these patients have to work, a lot of them think, “I don’t have time for this.” Therefore, they don’t always take time to manage their disease as they should. Because migrants go from here to other parts of the state and country, it’s difficult for them to get continuous medical care. In addition, newer immigrants don’t always trust the U.S. health care system, and if they are here illegally, they fear that if they seek medical care they will be deported.

Unfortunately, there are too few certified diabetes educators. Currently, there are only about 4,000 certified diabetes educators in the United States. At our facility, we are fortunate to have two other diabetes educators who primarily treat children for prediabetes, metabolic syndrome and obesity. We also go to the community at large to educate people about the risks and problems of obesity and diabetes.

Resources
- National Diabetes Education Program
- Más que Comida, es Vida Program
  For more information and for the recipe booklet, visit www.ndep.nih.gov or http://ndep.nih.gov/media/ad_MOC_sp_halfvert_4C.pdf, or call 1 (888) 693-N D E P (6337).
- National Alliance for Hispanic Health
  For more information, visit http://www.mmc.edu/www.meharry.org/HealthResource/Marcq_sp_halfvert_4C.pdf, or call 1 (888) 693-N D E P (6337).
- Diabetes Public Health Resource
  For more information, go to http://www.cdc.gov/diabetes/index.htm.
This quiz provides a convenient means for osteopathic physicians to assess their understanding of the scientific content of the August 2010 issue of AOA Health Watch.

To apply for one hour of Category 1-B continuing medical education credit, AOA members may take this quiz online at www.docmeonline.com, where this and other quizzes can be accessed by clicking on the link at the bottom of the home page. Quizzes that are completed online will be graded and credited to members’ CME activity reports.

Alternatively, osteopathic physicians can complete the print version of this quiz and send it to the mailing address or fax number below by February 28, 2012. For those who mail or fax this form, the AOA will record the fact that they submitted this quiz for Category 1-B CME credit.

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Division of Continuing Medical Education
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Chicago, IL 60611-2864
Fax: (312) 202-8202

AOA No._________________________________________________________
Full Name _______________________________________________________

So that osteopathic physicians can easily check their answers to the quiz, the correct answers will be published in the next issue of AOA Health Watch. If you mail or fax this form to the Division of CME, the AOA will record the fact that you have submitted this form for Category 1-B CME credit for the current CME cycle.

For each of the questions that follow, circle the letter next to your answer.

1. By the year 2020, the number of non-Hispanic whites in the United States with diabetes is estimated to increase by 27%; in contrast, the number of Hispanics in the United States with diagnosed diabetes is estimated to increase by:
   a. 77%
   b. 107%
   c. 127%
   d. none of the above

2. In the United States, prediabetes generally develops in persons between 40 and 60 years of age. In the Hispanic population in the United States, prediabetes develops:
   a. between 20 and 30 years of age
   b. between 30 and 40 years of age
   c. between 40 and 50 years of age
   d. between 50 and 60 years of age

3. Among Hispanics, some major treatment obstacles include:
   a. lack of insurance
   b. cultural and language barriers
   c. medication costs
   d. all of the above

4. Along with higher rates of diabetes, Hispanics generally experience:
   a. increased rates of obesity and metabolic syndrome
   b. poor nutrition and decreased physical activity
   c. greater family support that increases adherence to medical treatments
   d. both a and b

5. The Commonwealth Health Quality Survey found that:
   a. 45% of Spanish-speaking Hispanic patients have difficulty communicating with their physicians because of a language barrier
   b. 55% of Spanish-speaking Hispanic patients have transportation problems
   c. 65% of Spanish-speaking Hispanics have no insurance
   d. 88% of Hispanic parents rely on their children to make medical decisions

6. Two alternative treatments Hispanics often turned to are:
   a. cinnamon and nopales
   b. oregano and peppermint oil
   c. chiles and avocado
   d. none of the above

7. Ad hoc interpreters are usually:
   a. the patient’s family members or friends
   b. professional interpreters hired by the physician’s office
   c. community volunteers and members of the physician’s office staff who are bilingual
   d. assigned once they are selected from a state lottery

8. Cultural Hispanic values that physicians need to recognize include:
   a. familismo and fatalismo
   b. personalismo and respeto
   c. nopales and setimente
   d. both a and b
Quiz and answers to AOA Health Watch
DOs Against Diabetes Part 10  Volume 5, Number 1  February 2010

The correct answers to the following questions appear in **bold** type.

1. In large randomized controlled trials, antioxidants have:
   a. not been shown to produce benefits in patients with diabetes mellitus
   b. have been shown to produce benefits in patients with diabetes mellitus
   c. increased blood glucose levels

2. With regard to preventing the progression from prediabetes to diabetes, the diabetes prevention program showed that:
   a. intensive lifestyle changes are more effective than metformin
   b. metformin is more effective than intensive lifestyle changes
   c. neither intensive lifestyle changes nor metformin is effective

3. The Finnish Diabetes Prevention Study:
   a. showed the benefit of lifestyle changes in helping to prevent the progression from prediabetes to diabetes
   b. proved that lifestyle changes could not prevent the progression from prediabetes to diabetes
   c. none of the above

4. In patients with diabetes mellitus, tobacco use increases the risk of:
   a. microvascular complications
   b. macrovascular complications
   c. both a and b

5. Categories of bariatric surgery that may be used to help with weight loss include:
   a. restrictive procedures
   b. malabsorptive procedures
   c. a combination of the two

6. According to the American Diabetes Association, the oral glucose tolerance test:
   a. is not necessary to diagnose diabetes and should rarely be used
   b. is necessary to diagnose diabetes and should always be used
   c. is necessary but should be used in conjunction with other tests

7. Risk factor reduction is the most important therapy for prevention of macrovascular disease in patients with diabetes mellitus. These risk factors include:
   a. blood pressure control, lipid management and glucose control
   b. antioxidant and antiplatelet therapy
   c. none of the above

8. According to 2009 American Diabetes Association guidelines, aspirin-based antiplatelet therapy is:
   a. recommended for patients with diabetes mellitus who are over the age of 40 years with or without a history of cardiovascular disease
   b. recommended for patients with diabetes mellitus who are younger than 40 who have a history of cardiovascular disease
   c. both a and b

Visit DO-Online
The AOA offers a number of free live CME online programs on diabetes. For more information, visit: DO-Online.org. Select physicians, education, and CME for a current listing of upcoming live online Webcasts.
In This Corner

12 culturally sensitive tips to educate patients about diabetes mellitus
Gautam J. Desai, DO

Taking ethnicity and culture into consideration, following are 12 tips osteopathic physicians can use to educate patients about diabetes mellitus.

- Invite and encourage family members, preferably those living with the patient, to participate in diabetes education classes.
- Show elderly patients ways to incorporate exercise into daily activities and recreation. They should start slowly and have realistic goals.
- Work with patients to determine what is important to them and what changes they are ready to make.
- Educate patients and their families about healthier ways to prepare meals and healthier food options—in a manner that holds true to traditional cooking styles.
- Discuss the idea of glycemic index with patients and review how different foods are absorbed in the body.
- Encourage patients who have Internet access to visit the National Institute on Aging’s website (http://www.nia.nih.gov/Espanol/Publicaciones/diabetes) to obtain free educational information written in Spanish. Patients without Internet access or with challenges reading may call (800) 222-2225 (toll free) to ask questions in Spanish or to request printed materials.
- Encourage patients to call the Centers for Disease Control and Prevention at (877) 232-3422 (toll free) to obtain the patient care guide titled Take Charge of Your Diabetes, in Spanish.
- Educate patients and their families about resources for transportation assistance, such as a shuttle or bus service.
- Address the language barrier. Enlist the help of qualified family members and professional translators to ensure that patients understand the information from office visits.
- Give patients information sheets in Spanish, being sure that they are written at the appropriate literacy level.
- Learn a few words or phrases in Spanish to help make patients feel more comfortable.
- Consider taking free online courses to improve your “cultural competence.” One such course is available from the National Hispanic Council on Aging at http://edu.nhcoa.org/.