

In Brief

In working with diverse populations, health practitioners often view patients' culture as a barrier to care. Inverting this problem by viewing the barriers as arising from the culture of biomedicine provides greater direction for practice. Integral to the delivery of culturally appropriate diabetes care are practitioner competencies in specific areas of cultural knowledge, as well as specific skills in intercultural communication, tripartite cultural assessment, selecting among levels of intensity of cultural interventions (neutral, sensitive, innovative, or transformative), adapting patient education, and developing community partnerships.

Cultural Barriers to Care: Inverting the Problem

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The disparity in health status and access to care that exists between Anglo and minority populations in the United States has been a recognized problem since at least the early 1960s. Research has consistently documented that on almost any measure, minorities have poorer health than do Anglos. In 1985, the Secretary's Task Force on Black and Minority Health¹ published an eight-volume synthesis that highlighted the longstanding and persistent burden of death, disease, and disability experienced by individuals from the four federally defined ethnic groups of color (African, Hispanic, Asian, and Native American). Diabetes was one of six specific health areas accounting for more than 80% of the higher annual proportion of minority deaths. A decade later, in *Healthy People 2000: Midcourse Review and 1995 Revisions*, Shalala² stated that minority groups continue to experience disproportionately worse health outcomes than do Anglo-Americans. In fact, there is considerable evidence of increasing health disparities between white and minority groups.^{3,4}

In reviewing progress toward meeting *Healthy People 2000* objectives for reducing both the incidence of diabetes and diabetes-related complications, there has been minimal change from the baseline for both mortality and morbidity of diabetes. Instead,

actual diabetes-related deaths are rising among African-American and Native-American populations.² Diabetes prevalence rates are two to six times higher in Latino-, African-, Native-, and Asian-American groups than among Anglo-Americans. Further, fewer minority people with diabetes are aware of their diagnosis: of the estimated 2 million Latinos with diabetes, only half are aware of their condition. Mortality rates in these same minority groups are two to five times higher than among Anglos. The incidence of complications such as end-stage renal disease, retinopathy, and amputations among minorities is also disproportionately high. Diabetic nephropathy, as well as kidney and liver failure, is three to seven times higher in African Americans, Mexican Americans, and Native Americans, and rates of amputations are two to four times higher than among Anglos.⁵⁻⁸

On February 21, 1998, President Clinton announced a new initiative that sets a national goal of eliminating by 2010 longstanding disparities in health status that affect racial and ethnic groups. Diabetes is one of six specifically targeted areas of this initiative. This announcement marked the first time that the national health goals for all Americans were the same, ending a longstanding practice of setting lower goals for ethnic/minority

populations. Issues to be addressed under this ambitious initiative include lack of access to quality health services, environmental hazards in homes and neighborhoods, poverty, and need for effective prevention programs tailored to specific community needs. Thus, there is a professional mandate to address the growing disparity, particularly in the face of the demographic imperative resulting from the increasing proportions of minority populations in the United States.

For most ethnic minority groups, discussion of cultural dynamics in health care cannot take place without consideration of the ways in which culture intersects with issues of poverty and equity, including access to and utilization of health care, individual and institutional racism, and a lack of cultural competence on the part of health providers and programs. Although some system-wide barriers to care are considered elsewhere in this issue, they also need special consideration with most ethnic minority populations because the issues are heightened by the cultural dynamic.

For example, the income of Mexican Americans lags considerably below that of Anglos. Low income is both a direct and indirect financial barrier to access. Many patients cannot afford out-of-pocket payments, and an estimated 34% of Latinos have no health insurance coverage. Further, many Hispanics live in states with the most stringent Medicaid eligibility criteria and are therefore excluded from public financing programs. This financial-political situation precludes having a regular source of health care and use of preventive health services. It also creates serious limitations on patients' ability to manage diabetes, due to the high cost of medicines and health supplies, such as blood glucose monitors, test strips, and syringes.⁹

A study of the cause of hospital admission for diabetic ketoacidosis (DKA) further illustrates the salience of poverty. Interviews with nearly 40 patients who had been admitted with this condition revealed that the primary cause was cessation of insulin therapy. Half of the patients interviewed stopped therapy because of lack of money to purchase insulin from an outside pharmacy or to obtain transportation to the hospital. Further, several patients were unaware of diabetes management strategies for sick days and dosage adjustments. The authors

concluded that up to two-thirds of episodes of DKA may be preventable by improving patient education and access to care.¹⁰

Another example of the interactions of poverty, ethnicity, and policy involves the dramatic rise in rates of diabetes among Native American populations. Tribal peoples were stripped of their lands and forcibly resettled on reservations, which today have some of the highest rates of unemployment in the United States. For many years, rates of diabetes were very low among Native Americans. In the 1950s, the Cornell University Medical Team provided care and conducted physical examinations for the majority of the members of the Many Farms Navajo community and found few cases of type 2 diabetes. In 1988, Hall, Hickey, and Young¹¹ revisited Many Farms and collected comparison data. They found that members of the community are now 10 times more likely to have diabetes than they were 30 years ago. Key changes in the community included a reliance on the federally subsidized commodities food program that distributes excess farm produce, consisting primarily of refined flour, cheese, lard, and refined sugar. The recent conceptualization of fry bread as a traditional Native American food is largely a result of the commodities food distribution program. These factors, coupled with a dramatic reduction in physical activity resulting from altered traditional work patterns and greater access to fast foods, has resulted in an epidemic of diabetes in this and other Native American communities.

The need to consider cultural factors in the care of people with diabetes has been identified for several decades. Yet we are not close to effectively addressing this issue in practice. A key reason is that the patient's culture is often seen as a problem, causing a barrier to care. We "problematize" the patient and the culture. Further, by thinking that culture is what other people have, we objectify culture and distance ourselves from it and from ethnic patients. Marginalization of culture and of ethnic patients minimizes our responsibility to address culture in practice; the problem is situated in our client's culture.

We would make greater progress inverting this "problem" and viewing the barriers as resulting not from patients' cultures but from the values

and beliefs inherent in biomedical culture, insufficient professional training, and care system barriers. We have failed to adequately address our responsibilities as practitioners for having competent knowledge and skill sets and using them effectively when working with ethnic clients.

BARRIERS TO CARE

Practitioner Barriers

Culture is often defined as a learned set of values, beliefs, norms, and patterns of behavior. It is exceptionally difficult to describe or comprehend the extent to which ethnocentrism and racism have been woven into the fabric of our health care system.¹² An examination of the beliefs and values inherent in the biomedical culture illuminates many barriers in caring for minority clients. These include:

- Patients who do not practice healthy behaviors "don't care about their health."
- Personal health is the most important priority for each family member.
- Biomedicine is "right."
- Science is the only appropriate basis for practice.
- Traditional beliefs should be changed rather than built upon.
- Everyone understands the concept of "chronic illness."
- People should and will follow directions given by health practitioners.
- Adherence failure is the patient's problem.
- Patients have autonomy—except with regard to adherence.
- Health care is available and accessible to all.

Providers often develop a fatalistic attitude toward clients, thinking that nothing they do will change patients' behaviors. These provider beliefs, coupled with an undeveloped skill set, result in inadequate care. We need knowledge-based strategies delivered by culturally skilled practitioners to truly address diabetes health issues with minority clients. Ethnocentric or culturally encapsulated programs result in under-use and premature termination; arguably, this constitutes professional malpractice.

We contend that practitioners need a particular skill set in order to provide culturally competent diabetes care to minority clients/families/communities. These skills include the informed abilities to:

1. Adapt communication/interaction patterns.
 - Use appropriate strategies to demonstrate respect.
 - Use indirect (rather than direct) communication when necessary.
 - Select and partner with interpreters appropriately.
2. Perform targeted cultural assessments (for defining problems, modifying/constructing interventions, and establishing participating outcome goals).
3. Modify diabetes education programs.
 - Determine patients' preferred learning style: visual, auditory, experiential; and use appropriate teaching modality (talking circles, one-on-one, didactic, lay model).
 - Assess patients' reading level.
 - Evaluate reading level of patient education materials.
 - Use cultural themes, metaphors, or folktales to deliver health messages.
4. Elicit information about patients' logic of noncompliance and involve patients in problem solving to devise strategies to address patients' issues.
5. Determine applicability of a strategy demonstrated effective with one particular population to a particular individual within that population or to a different population.
6. Work in partnership with ethnic communities.
7. Assess personal and agency level of cultural competence and take actions to address deficiencies.

Practitioners often indicate that these skills are not feasible because they lack time, resources, and/or information (and sometimes motivation) to comply with these practice standards. Yet they fail to recognize that these are the same reasons offered by patients who have difficulties managing a recommended therapeutic regimen.

Care System Barriers

This brings us to the second set of barriers: those of the health care system. These barriers include issues of service availability, accessibility, and acceptability.

Issues of availability traditionally include service/facility location, the number and type of providers in the facilities, and whether services are known to the minority populations. Location of services within minority

neighborhoods increases utilization. Yet trend analyses show increasing closure of rural hospitals and financially stressed urban hospitals serving poor, minority populations, coupled with primary care provider flight or reluctance to locate in those areas.¹³ Further, an increasing number of providers are unwilling to see patients on public assistance programs or who are uninsured. When services are available, community outreach is often required if ethnic groups are to become aware of these options. Competent outreach programs use social marketing strategies (e.g., use of minority-targeted media channels such as Spanish broadcast radio, posting information targeting African Americans in barber or beautician shops) to get their message to the targeted groups.

Issues of accessibility relate to geographic, linguistic, and financial features. Geographic accessibility addresses issues of location, including expense, convenience, safety, and ease of transportation. Linguistic accessibility addresses the presence of bilingual staff or professional interpreters, as well as bilingual health education materials. Financial accessibility includes issues of immigration status and fear of deportation, proportion of community covered by insurance or public assistance, and scope of coverage (including retinal examinations, health supplies, and co-payments).

A corollary area involves differential eligibility criteria. For example, Native Americans can receive health services on reservations at Indian Health Services (IHS) or, more recently for some tribes, through privately contracted services. Often, these agencies are small, lack professional presence, or may be staffed by transient newly trained residents paying back student loans. Further obstacles arise for Native Americans in urban areas, where there are no IHS services. In investigating access and coping strategies for lower-income African Americans in the rural South, Strickland and Strickland¹⁴ reported the most frequently cited reasons for not receiving care were an inability to pay and a perceived lack of need (even among people with diabetes). Hispanic Americans are more likely than Anglos to be uninsured (34 vs. 11%); lack private, job-related health insurance; lack usual sources of care; have hospital-based sources of care; and be in fair or poor health.¹⁵

Issues of acceptability involve dimensions of patient comfort and satisfaction with providers and services. Key dimensions include trust, respect, and the delivery of culturally congruent services. Trust is a key element in service acceptability because ethnic groups often share a suspicion of physicians and service agencies. Many Hmong believe that physicians may use them for experimentation or practice¹⁶; similar beliefs have been reported for African and Native Americans.¹⁷ Trust is enhanced when care providers are bilingual/bicultural.

Continuity of care, with consistent provision by a provider with whom patients can develop trusting relationships, is also important. Similarly, receiving consistent messages regarding which issues in diabetes management are most important (diet, urine checks, foot checks, blood levels, or urine protein) increases confidence and satisfaction with care.

Finally, the provision of culturally competent care is coming to be a standard in several professions and governmental agencies. The California state government, for example, has established cultural competency guidelines for Medi-Cal health plan contractors.⁹ Cultural competence includes awareness of and sensitivity to cultural differences; knowledge of cultural values, beliefs, and behaviors; and skill in working with culturally diverse populations. Cultural competence is necessary at both the practitioner and agency levels. Recently, materials and instruments have become available for assessing practitioner and agency cultural competence and for creating culturally competent services.^{9,18,19}

In this paper, we focus on the health practitioner competencies of cultural knowledge (specifically health, illness, and dietary beliefs and behaviors) as well as skills in communication, cultural assessments, patient education, and developing community-based programs.

DELIVERY OF CULTURALLY COMPETENT CARE

Knowledge

It is essential to place individuals and families in appropriate context. Understanding the broader cultural context in which families are enmeshed can serve as important background data for conducting assessments and planning intervention

strategies. Ethnic characteristics such as values, beliefs, customs, and family patterns may be used as clues, as a piece of the total information gathered regarding clients with chronic illness.

Ethnicity is also a critical variable in how people with diabetes are perceived and treated by their family and how their family, in turn, is viewed by their community at large. Cultural factors mediate ways in which symptoms are identified and interpreted, appropriate modes of expression of pain and discomfort, whether a particular chronic condition is highly stigmatized or accepted, and whether the dependency that accompanies chronic illness is disvalued or considered part of the normal cycle of life. Finally, ethnicity may influence ways in which families interact with health professionals and considerations that practitioners must give for their care to be most effective.

Health beliefs and behaviors

Practitioners often verbalize their frustration with ethnic patients who do not seek regular or preventive health care. A common erroneous belief of practitioners is that members of minority groups simply do not care about their health. There are many reasons that a group may not regularly participate in health screenings, including beliefs, priorities, and access. Issues of access will be addressed later but include lack of knowledge about services, transportation, financial issues, and acceptability of services.

Several chronic diseases such as diabetes have symptoms that are not readily identifiable. Many people do not seek health care unless their condition interferes with social or personal activities of daily living, such as work and household maintenance functions. Seeking care when not functionally impaired may be viewed as a self-indulgent luxury. Further, there is often fear or reluctance to seek professional care unless necessary. Hmong immigrants, for example, often believe that discussing a potential health problem before it occurs increases its likelihood.²⁰ As a result, diabetes may not be detected until advanced unless it is identified when care is sought for a different problem.

Other beliefs may contribute to health risks. A common belief among many ethnic groups is that a heavier physique is indicative of health.

Navajo and Utes believe a heavy body indicates both health and happiness.²¹ Hmong regard fat as one of two essential elements (together with blood) that provide vitality for the body.¹⁶ Some Chinese people may believe that extra weight is a blessing related to wealth and prosperity.²²

Illness beliefs and practices

The definition of illness is part of a belief system and is largely determined by cultural factors. Although diabetes has only recently been identified as a named illness in many groups, beliefs about diabetes have been formulated to be consistent with the broader cultural health/illness belief systems. Common beliefs across ethnic groups are that health is a state of equilibrium, and illness is caused by excesses or deficiencies. Diabetes is often believed to be caused by eating excess sweets (particularly sugar), brought on by stress and worry, or a form of punishment for immoral behavior.

Many Native American tribes (e.g., Ojibwa, Cree, Dakota, Navajo, Kiowa, Ute), for example, believe that diabetes is a new disease introduced by the "white man." Typically, diabetes is believed to result from a state of imbalance caused by consuming too much sugar, consuming too much food in general, drinking alcohol, or behaving immorally. Because one should strive to follow the right path, a diagnosis of diabetes may indicate a failure to live properly and a lack of spiritual strength. As a result, a person may feel shamed by a diagnosis of diabetes and reluctant to tell family or friends.^{21,23-27}

The idea of a chronic illness is not consistent with many traditional health systems, and the need for lifetime continued treatments may be an anathema.²¹ Native Americans often judge the severity of an illness by the amount of pain, disability, and discomfort it produces.²⁸ Native American treatments may include seeking a ritual healing from a spiritual healer or using herbs for symptoms. Ritual healings restore the body, mind, and spirit to a state of balance. Subsequently, afflicted individuals often will commit to living a life of balance and harmony with respect to food, activity, prayer, sleep, and social relations. Herbs widely used in the Southwest and Mexico include those with known hypoglycemic activity, such as nopal (prickly pear cactus), garlic, onion,

and hintonia (copalquin). However, some of these agents also have toxic effects. Hintonia, for example, contains pyrrolizidine alkaloids that can cause severe liver damage.^{29,30}

Other ethnic groups follow similar patterns. Rural southern African Americans may believe that the condition "sugar" or "sweet blood" is caused by imbalance in eating (too much sugar and starchy foods) and that it is made worse by excessive stress and worry. For some, there is a continuum of intensity, with a diagnosis of "sugar" being less serious than one of diabetes. Common treatments include prayer, trusting in God, and the use of bitter foods and herbs (lemon juice, garlic, juniper berries) to neutralize the blood.³¹⁻³⁵

Interestingly, older African Americans may reverse the typical pattern of older ethnic members using more folk or traditional therapies. Older African Americans with diabetes were found to use folk and popular remedies less often than did middle-aged cohorts.³⁶

Chinese Americans may have incorporated diabetes into the traditional Chinese medical system. Diabetes may be considered a "hot" or yang illness that can be neutralized by "cold" or yin remedies. Ginseng is one of the cooling herbs believed to restore energy and cure diabetes.²²

Mexican-American and Puerto Rican patients may believe that diabetes results from their consuming too much sugar or as God's will or punishment.^{37,38} These populations report the following symptoms indicative of elevated blood glucose: weakness, headache, nervousness, leg pains, forgetfulness, and anger. In one study of elderly Puerto Ricans with diabetes, more than half used herbs and prayer to treat diabetes, reporting that the latter provided a peacefulness that improved their diabetes.³⁷

Practitioners' assessments of these self-care practices are crucial for modification of treatment strategies and outcome evaluation. Many of the herbal therapies are hypoglycemic agents and, in combination with oral therapies or insulin, may result in hypoglycemic crisis. Further, some may have toxic side effects, and their use should be discouraged. Finally, the associated health beliefs (such as shame) may warrant exploration.

Dietary beliefs and practices

All people use food in culturally

defined ways. A plant classified as food by one group may be considered inedible by another. Within the range of culturally approved food items, an individual's diet depends on a host of religious, economic, family, psychological, and personal factors.

Religion is a key aspect of culture that often prescribes or proscribes food patterns. For example, pork is not an acceptable food for Jewish or Moslem adherents, and beef is not acceptable to Hindus. Fasting may also be highly significant in religious practice. Adherents of Islam fast from sunrise to sunset during the month of Ramadan. Although people who are ill may be exempt from this fast, many people with diabetes do not consider themselves sufficiently ill to request this exemption.

Food patterns are learned in the family context and have highly symbolic and affective associations. Although ethnic individuals may vary widely in their adherence to traditional food practices, food traditions are generally among the last to be modified through acculturation. Culturally determined dietary practices involve the identification of foods, methods of food preparation, condiment selection, timing and frequency of meals, and the ritual, social, and symbolic use of foods.

Foods are an essential aspect in many religious and social ceremonies. Among most Native American groups, participating in ceremonial feasts is a key component in maintaining tribal identity. For example, the Navajo categorize food as being either "strong" or "fillers." Strong foods (corn products, mutton, stew, fry bread, beef, coffee) are believed to provide satiety, strength for heavy work, and illness prevention and therapy. Strong foods are served at social and religious functions and donated to kin in times of need. Fillers include commodity foods, such as cheese, refined flour, and canned meat. These fillers are not used ceremonially or as gifts.²¹

Studies have described many reasons for noncompliance with dietary recommendations. Cherokee reported difficulty in using the exchange system and a reluctance to use new foods and cooking practices.³⁹ For the Navajo and Ute, the suggestion to withhold certain foods, limit their consumption, or not participate in religious feasts was unconscionable.²¹ Objections to the use of recommended vegetables were reported by Dakota Sioux²⁷ and

Seminole.^{40,41} Puerto Rican patients with diabetes reported low income and expense of foods, lack of knowledge about measuring foods, and the need to prepare foods for others as key reasons for not following a prescribed diet.³⁷ Similarly, the most difficult aspect of diabetes self-care management for a group of Mexican-American women in Detroit was its disruption with managing their family responsibilities.⁴²

Practitioner Skills

Practitioners need a repertoire of culturally competent skills, including selecting and using interpreters, conducting tripartite cultural assessments, selecting appropriate levels of intensity of cultural interventions, adapting diabetes patient education approaches and materials by adapting content teaching modality and designated "educator," and developing community-based programs.

Intercultural communication

Cultural differences in verbal and nonverbal communication have been well described elsewhere.^{43,44} Key skills include attending to rules of conversation (e.g., social introduction, demonstrating respect, lack of hurriedness), choosing personalized or more detached interaction modes, selecting direct versus indirect approaches, and the therapeutic use of silence, proxemics, and touch.

For example, use of indirect communication rather than direct questioning or instruction is often recommended with Native American and Hispanic patients.^{24,45} Hagey's "Belonging" program²⁵ developed for Ojibwa and Cree communities incorporated the "indirect approach." Components of this program included the educator presenting as a colleague rather than as an authority; not requiring direct or immediate responses from audience members; establishing ties through relatives, friends, or common locations; using indirect referencing (e.g., saying that "someone who has such a problem, might do the following" rather than using a directive approach); incorporating humor during serious discussion to provide balanced communication; and avoiding confrontation.

Use of interpreters

Equal access to services requires effective communication, which may not be possible when providers are not

proficient in a patient's preferred language. For people who use languages other than English, having a basic understanding of English is not sufficient to understand health care information, especially in stressful situations. Language barriers contribute to miscommunication and inappropriate treatment plans, often resulting in decreased client and provider satisfaction, poorer client understanding of disease, less recall of information, and premature termination of care.⁴⁶

For clients who do not speak or understand English or who have limited English, a trained interpreter should be available for all encounters, particularly those involving verbal assessment or education. Trained interpreters (whether on staff, on call, or via a telephone interpreter service) are preferable to interpretation by bilingual family members because of uncertain proficiency across both languages, issues of confidentiality, and cultural norms related to prohibiting discussion of certain topics between particular family, age, or gender roles (as in the case of using children to interpret). Furthermore, providers should be knowledgeable of techniques to facilitate an interpreted client encounter, such as speaking directly to the client, using short sentences and non-technical language, allowing sufficient time, and not asking the interpreter to make judgments or provide information about which they have no expertise.⁴⁷ Written materials should be provided in English and in clients' primary language, so that the information is available both to patients and to other people in their support system. Many bilingual diabetes education materials, especially in Spanish, are available on the World Wide Web.

Cultural assessment

A cultural assessment is a focused and systematic appraisal of beliefs, values, and practices conducted to determine the context and substance of client needs and then to best adapt (or construct) and evaluate health interventions. Unlike physical assessments, cultural assessments are necessary for each of the three phases of professional practice: problem identification, intervention, and evaluation. Cultural assessments are not exhaustive of all aspects of culture, but rather are focused on those elements relevant to the presenting problem, necessary intervention, and participatory evaluation.⁴³

The general approach for cultural assessment can be summarized as follows. In the first phase of a cultural assessment, the practitioner performs a general assessment to a) obtain an overview of the characteristics of the client and b) identify areas that potentially require more in-depth assessment. Topics at this level include ethnicity and degree of affiliation with ethnic group, level of acculturation, religion, patterns of decision-making, and preferred communication styles.

In the second phase, problem- or situation-specific cultural information is elicited. Information is obtained specific to the patient's presenting problem or diagnosis. Topics in this phase often include the client's subjective reasons for seeking care, beliefs about the problem, and previous and anticipated treatment.

The third phase of the initial assessment is directed at eliciting detailed cultural factors that may influence intervention strategies. For example, if diet teaching is the planned intervention, then detailed information would be collected regarding a) the patient's current and preferred diet; b) specifics regarding food preparation (including who does the preparation and when meals are eaten); and c) the meaning of food in the patient's life.

The final phase of cultural assessment addresses the patient and family views on optimal treatment choices to be incorporated into the evaluation of care.

Continuum of culturally responsive interventions

Interventions for ethnic clients and communities may be arrayed along a continuum of intensity. Practitioner skills involve selecting or developing interventions at each level.

1. *Culturally neutral interventions* are those that represent standard practice (generally developed by Anglo practitioners and tested for efficacy with Anglo patients).
2. *Culturally sensitive interventions* modify standard approaches to be culturally congruent by using bilingual/bicultural materials, incorporating ethnic preferences (e.g., food patterns), and addressing issues of access (cost, hours, geographical proximity).
3. *Culturally innovative interventions* involve the intentional and active use of cultural elements to construct interventions that tap sym-

bolic levels through use of cultural themes, metaphors, symbols, or sound structure. Culturally innovative interventions may employ social marketing strategies to identify and work with key social institutions (churches, tribal councils), to tap established social networks (clans, neighborhoods), to construct contextually meaningful messages (metaphor, core values), and to use culturally anchored modes of information dissemination (ethnic newspapers, church bulletins, fotonovellas).

4. *Culturally transformative interventions* are based on the principles of social activism. Interventions at this level involve change in the structural elements involving power and oppression. Transformative interventions involve second-order change strategies that first identify tacit or hidden power relations and then partner with communities to alter aspects of the basic social structure.

It is important to note that none of the levels of cultural intervention is necessarily "right" or better than the others. Each has a place in health care delivery. Practitioners need to thoughtfully identify which level is appropriate in different clinical situations given characteristics of the client, setting, health issue, and personal capabilities.

Diabetes patient education

In developing health education programs, the content, teaching modality, and person designated to provide information all merit consideration. A common problem with health education content is that health professionals provide too much detail regarding pathophysiology and too little regarding the daily management of illnesses.

It is important to assess patient beliefs and current practices concerning a condition and to use that information as a foundation on which to build health education programs. If the health program is broadly implemented, important information from community members can be gleaned in focus groups before initiation of the program to address those areas of greatest concern for the target group. Cultural information can be well incorporated here as it relates to the area of health education. For example, if the intervention is nutrition counseling, inclusion of common

foods, methods of preparation, and typical units of food measurement is necessary.

Successful intercultural patient education programs elicit and build on patients' health beliefs, preferred learning styles, lifestyle preferences and practices, and community context. They also give particular consideration to teaching modalities, program content, and ensuring appropriateness of written materials.^{43,48-50}

Gohdes⁵¹ found that diet therapy in diabetes has been less-than-successful among ethnic groups for three key reasons:

1. The dietary goals have not been clearly articulated.
2. Usual diet recommendations have been unrelated to patients' cultural and economic situation.
3. The diet has been represented in ways that are difficult for learners with low literacy to understand and implement.

The importance of developing health education materials that are relevant for specific ethnic groups and tribes has been established.^{52,53} Although there have been efforts to develop⁵⁴ and regularly update⁵⁵ ethnic-specific dietary guides or examples (e.g., for Jewish cookery or for Chinese cuisine) since at least the late 1970s, these have not been widely disseminated and are not well used by practitioners.

Addressing learning styles

Cultural variation in learning styles is an important consideration in patient education. In cultures having a strong oral tradition, a number of formats have been demonstrated to be effective, including the use of cultural themes and imagery, metaphors, story telling, or pictures (e.g., fotonovellas) to convey health messages; reconfiguration of group structure (e.g., talking circles); and inclusion of target community members as role models or co-leaders.

Successful use of storytelling or adapting folktales has been demonstrated among Native Americans in Florida and Canada. A program using folktales and metaphorical narratives to transmit health concepts was developed and adapted by nurses in concert with a Seminole tribal physician. Seminole folktales were adapted based on initiation stories, origin stories, or animal stories (e.g., the legend of the Juniper family) and delivered by Seminole women.⁵⁶

Hagey^{24,25} described two particular-

ly successful approaches for diabetes health education. The first was the Native Diabetes program involving the development of stories and the use of metaphors by Ojibwa and Cree leaders. The story "Nanabush and the Pale Stranger" was developed to provide an explanation for diabetes as well as a model for dealing with the illness. Hagey advocated the use of culturally relevant metaphors as a strategy for making meaningful and tolerable that which is feared and avoided and for making health information understandable and useful by providing resolution to conflicting systems of belief.

The second program was the "Belonging" program,²⁵ developed in concert with tribal leaders for urban natives in Canada. Key elements of this program included the development of native-oriented material and community center programming that would help indigenous peoples with diabetes make positive health decisions and aid in their learning to cope with diabetes. The program developed several metaphors that tapped culturally relevant domains. Subsequently, a program modeled on these principles was implemented among five tribal groups in southern Alberta and the regional medical center.⁵⁷

Basic principles for using metaphors and folktales and strategies to develop them have been well described elsewhere.^{58,59} These approaches have been used successfully with several populations. For example, the cultural themes of kinship solidarity and equilibrium⁶⁰ were effective in Cambodian, Vietnamese, and Hmong populations.

Modified modes of delivery may also be warranted. The use of talking circles, in which participants are seated in a circle, demonstrate the principles of equality and the value of sharing rather than imparting information.^{24,57} Peer educators and community "witness" models have also demonstrated positive results.

Among groups in which an authoritarian approach is appropriate, the use of powerful others to give messages may be an effective technique. However, it is important to consider that powerful others for health activities may not be the same as for financial or other purposes.⁴⁹ Experiential approaches such as cooking demonstrations, food label interpretations, and grocery store trips are other strategies.

As a counterpoint, some contend that a single-concept approach to diet instruction (eat less sugar, be more active) is more effective with many Native Americans than traditional diet exchange approaches.⁶¹

Issues of motivational strategies are also salient. For example, the use of spiritual and gospel songs as motivation for exercise has had positive results with African-American people with diabetes.⁶² Perhaps more important is the need to tailor the focus of motivation in different ethnic groups. An emphasis on complication prevention was central to the effectiveness of an exercise program with African Americans.⁶² Yet numerous authors have cautioned against the use of fear or threat of complications when working with Native Americans. In the latter, an emphasis on right living and balance are seen as more powerful.

Using written diabetes education materials

Previous reviews of available diabetes education materials suggest that most of this literature is at a high reading level or is not culturally sensitive.⁶³ Patient education materials are generally developed by Anglos for Anglo patients. As a result, illustrations and examples most commonly reflect white middle-class circumstances. In an examination of patient education materials commonly used by nurses in a local health department, a community health center, and a home health care agency in Detroit, Mich., Wilson⁶⁴ found that a ninth-grade reading level was required for most materials. Further, culturally congruent information (language, beliefs, perceptions) was found in only 4 of the 47 materials reviewed, despite the fact that these agencies served more than 90 different ethnic and cultural groups.

A health educator coalition reviewed the readability of a variety of diabetes education materials used with Native American tribes in a multi-state region and found the average readability score for the 18 commonly used pamphlets was tenth-grade level, whereas the reading level of most of the patients was sixth-grade.⁶⁵ The coalition concluded that, "although health care providers adjust drug dosages according to the patient's ability to absorb and to metabolize the substance, few try to adjust educational messages and

materials according to the patient's ability to absorb and apply the content to personal lifestyles."

Assessment of a patient's reading level can be accomplished in about five minutes using the Wide Range Achievement Test.⁶⁶ Correspondingly, there are several approaches available to calculate the reading level of health materials (e.g., the SMOG index or a Fry Graph).^{60,65,67} Questionnaires or focus groups can also be used to evaluate health education materials to identify confusing portions of text and provide feedback on ethnic motifs and graphics and text references to specific ethnic lifestyles.

SUCCESSFUL MINORITY DIABETES PROGRAMS ARRANGED BY THE CONTINUUM OF INTERVENTIONS

Several model intervention projects related to diabetes prevention and management have been conducted. These programs target exercise, diet, weight, health education, or community mobilization. Some examples of successful programs are briefly described below.

Culturally Sensitive Intervention Models

- A successful diabetes education program among Winnebago and Omaha tribal members emphasized eating more of certain foods rather than restricting others. It also emphasized only a few changes at each visit, gave positive feedback for changes, distributed food lists and posters, used experiential learning (test kitchen with sample foods; food and label displays with selection practice sessions), used positive messages ("You can improve your health.") rather than fear and negative consequence messages, and used the single-concept approach ("Eat less fat.").⁶¹ A similar but less extensive program was also successfully offered to low-income Mexican-American women with diabetes via a workshop approach that incorporated cooking demonstrations.⁶⁸
- The Zuni Diabetes Project community-based exercise program and Zuni and Navajo weight-loss competitions. Zuni volunteers offer exercise programs after a period of training. Programs are offered several times daily at different sites in the community. In

addition, culturally consistent exercise events (e.g., foot races) are supported annually.⁶⁹

- The Rio Grande Valley Study, another culturally anchored program, incorporates Spanish language, Mexican-American dietary preferences, group discussion, demonstration and skill building, organized support (family and friends), focus group input into videotape development, and grocery trips (experiential learning).⁷⁰

Culturally Innovative Intervention Models

- The White Mountain Apache diabetes project "Ndee Bii Fitness" targets regular physical exercise and loss of excess weight. Because of the remote rural locations of tribal members, this program implemented interventions that announced physical activities through a monthly newsletter, bilingual talk shows, and public service announcements on the local Apache radio. Program staff trained and certified community members as fitness instructors and achieved a large and regular attendance at exercise classes. They also reported the importance of using both male and female trainers to engage both male and female participants.⁷¹
- In a diabetes prevention program, UNITY (United National Indian Tribal Youth) produced four posters profiling Native American athletes who are role models. The posters help to instill pride in Native American heritage by promoting traditional sport activities, such as running.⁷²
- The Checkerboard Cardiovascular Curriculum⁷³ targeted Navajo, Pueblo, and Mexican-American children. It focused on incorporating traditional beliefs and practices into the lives of school children. Grandparents were interviewed about eating and exercise habits when they were young, and elders were brought into the classrooms to cook traditional but heart-healthy foods and to talk about the cultural importance of physical activity and fitness. Recommendations were made for using food at hand (because of limited access to inexpensive fresh produce and low-calorie foods), and a running program for physical exercise was established.

Transformative Intervention Models

- A diagnostic research project was conducted with the Mohawk community of Akwesasne in New York State to develop a community coalition for diabetes prevention. Key elements included an advisory group with more Mohawk participants than professors and use of interviews and focus groups to understand community strengths and barriers to developing healthy lifestyles. More than 90 community members participated in the planning and implementation of the program. After 2 years, the "Let's Get Healthy!" (Tsitweatakari:tat) Program is underway as a coalition between the Mohawk community and the University of Vermont.⁷⁴
- A community-level intervention for diabetes education involved extensive planning with local tribal leaders among the Northern Ute.⁷⁵ Multiple strategies implemented included patient/family education, provider education, development of clinical protocols, and increased tribal awareness of diabetes. Lay community health workers were initially employed to assist with transportation of patients and language interpretation between clinic staff and patients. However, their roles evolved into patient educators and cultural liaisons. Strategies to increase community awareness included presenting a culturally acceptable 75-slide educational program on diabetes; airing public service announcements on local Ute radio programs; and writing articles for the local newspaper. Evaluation during the fifth year of the project demonstrated positive changes in blood glucose control and blood pressure, a five-fold increase in diabetes clinic attendance, and the tribal request to add monthly nutrition education programs. Although there was not a change in the rate of end-stage renal disease, this indicator may be too distal to serve as a good measure of program effectiveness in a five-year period.
- The Nutritional Neighbors Program targeted at-risk African-American women in St. Louis, Mo. The broad approaches included integrating community values into health messages, facili-

tating neighborhood ownership and decision making, using existing formal and informal networks, and empowering individuals and communities. Specific strategies included using community volunteers ("nutrition neighbors") to serve as models and community outreach workers. These community volunteers participated in focus groups to help develop culturally anchored health education materials for their peers. These efforts resulted in materials about reducing the risk of diabetes and cardiovascular disease, a healthy nutrition recipe book featuring favorite recipes modified to reduce fat and sugar content and increase fiber, lists of frequently purchased foods, and information emphasizing healthy substitutes for high-fat foods.⁷⁶

SUMMARY OF EFFECTIVE CULTURAL INTERVENTIONS

Addressing barriers arising from the health care system involves locating services within the targeted community to maximize access, offering a broad array of health and social services to increase efficiency and continuity, maintaining a consistent staff, hiring and retaining bilingual, bicultural staff, expanding hours of operation, and emphasizing family and community involvement with regard to graphics, posters and pictures, music, and seating arrangements. To address areas of practitioner culture competencies, diabetes health professionals need cultural knowledge and a repertoire of culturally competent skills.

One of the most notable features of the current state of the science related to cultural interventions for diabetes is the consistent need for involvement of community leaders in the identification of community health needs and in the planning, delivery, and evaluation of health services. Another common effective approach is the training of and collaboration with lay community outreach workers. Use of these paraprofessionals is often the key to establishing direct cultural links because they serve as liaisons between the culture of biomedicine and the ethnic community. Because they know the language and accepted patterns of behavior, their services are often accepted more readily by the targeted community. Working in collaboration

with nurses, community outreach workers offer a cost-effective and culturally acceptable approach to delivering diabetes health care to underserved populations.

Effective social marketing strategies to publicize diabetes health programs and recruit participants/patients include tapping the established social structures and modes of communication. This involves identifying and working through the key social institutions (e.g., African-American churches and barber shops) and indigenous leaders/roles (e.g., African-American church mothers, Navajo female clan elders, Chinese male clan elders) within each community. Dissemination of information is most effective when delivered through established channels (e.g., Hispanic broadcast radio, ethnic newspapers).

Issues of interpersonal communication have been shown to dramatically affect the acceptability of health programs. The most important aspect here is language. Communication in the language of the client is crucial to effective care. This may occur through bilingual professional staff, lay workers, paid or unpaid translators, or the use of special services such as the AT&T Language Line. Other linguistic issues include selecting a direct versus an indirect approach and a confrontational versus a collaborative style.

Although the research is clear that matching staff and patient for language is crucial, there are conflicting reports concerning the advantage of matching staff and patients by ethnicity. However, having staff emphasize respect for all people and maintain client dignity is imperative. The incorporation of rituals (sharing food, initiating a project with a prayer, or giving symbolic gifts) may also aid in establishing an effective milieu.

Finally, practitioners and agencies must deliberately and systematically assess their level of cultural competency and take action to address areas of deficiency. There is not a single model of diabetes care (either community-based or individual-focused) that fits all ethnic communities or all individuals within a community. Similarly, in using any of these strategies at an individual level, it is important to assess the person's level of ethnic affiliation and acculturation before implementation.

We have sufficient knowledge to modify both system and practitioner

barriers to deliver effective diabetes care to minority populations, and we have national mandates to reduce diabetes health disparities. The time for change is now!

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