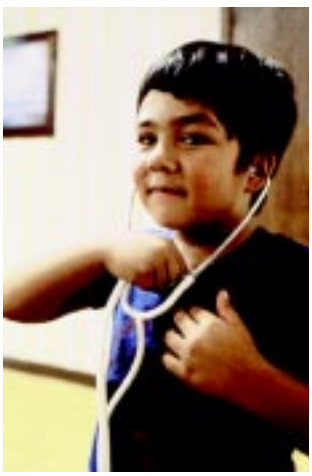
John P Foreyt, PhD, discusses weight management among Latino Americans

Cultural Competence in the Prevention and Treatment of Obesity: Latino Americans

By John P Foreyt, PhD



If I were in charge of treating obesity in the United States, I'd spend all the money working with children like this boy. He's Latino and lives on the US-Mexico border, across the Rio Grande from Mexico. His mother was a patient of ours; she's diabetic, going blind, and having a leg amputated. The boy too could be at risk of becoming diabetic one day; that's what's happening to this population.

Maternal nutrition knowledge and feeding practices are factors in obesity.

Along with African Americans, Latino Americans are now one of the two largest minority groups in the United States;[1] this situation happened very quickly because these groups tend to have many children. Latinos are younger than the white population, less well educated, and have lower incomes; 27% live below the poverty level.[1]

Prevalence of overweight and obesity in Latinos is 73%.[2] Along with prevalence of obesity, Latinos have more risk-taking behaviors that contribute to diabetes, hypertension, alcoholism and cirrhosis, many types of cancer, and violent as well as accidental death.[3-9]

The statistics make it clear that we must find ways to help. Behavioral analysis is needed. Researchers must involve themselves in the Mexican culture and see what can be done. Short-term studies of weight management in minorities exist, but, unfortunately, few randomized controlled trials of weight management have been conducted in minority populations. We do know that recruiting minority participants is more difficult than recruiting white participants; moreover, Latino participants who join drop out more often, and those who participate lose less weight than their white counterparts.[10]

What factors are associated with obesity among Latinos? First and foremost, poverty. Poverty is the driving force in our culture. Poor people tend to be heavy; rich people, skinny.[11-17]

Acculturation is also a factor: As people assume for themselves the values of the white population, they become heavier. Acculturated Latinos eat more fried foods and less fruit, and Latinos of low socioeconomic status (SES) have fewer low-fat dietary practices. Compared with whites, Latinos eat more servings of meat; Latinos also eat a less varied diet, in general.[18]

Maternal nutrition knowledge and feeding practices are factors in obesity. So are cultural beliefs like *fatalismo,* the idea that whatever happens, happens: "I'm going to get diabetes like my parents and my grandparents." Language issues are also a factor.[19,20]

How can we improve cultural relevance and sensitivity? First, understand cultural differences. Perhaps emphasize factors like diabetes and hypertension instead of weight itself. Second, incorporate culturally based food preferences and reinforce healthy food choices. Consider the "food pyramid" only in relation to special dietary needs; for example, remember that the food pyramid isn't relevant to a population that doesn't eat many vegetables—and along the US-Mexico border, Latinos don't eat many vegetables. One of our dietitians doing a nutrition demonstration had brought a salad with her, and the grandfather said, in Spanish, "Woman, get those weeds out of here."

Third, work with extended families—such as the grandmother who heads the family—instead of focusing on individual family members. Instead of discussing "basic food groups," talk about folk systems of food classifica-

John P Foreyt, PhD, a professor at Baylor College of Medicine in Houston, Texas, is the Director of the DeBakey Heart Center's Behavioral Medicine Research Center, Department of Medicine. He has published 17 books and more than 250 articles in the areas of diet modification, cardiovascular risk reduction, eating disorders, and obesity. E-mail: jforeyt@bcm.tmc.edu.

tion. This approach is used by our therapists, who are Mexican-American bilingual dietitians who live in the culture.

Three Studies of Dietary Practices in Latino Populations

We studied a Latino population in Starr County (Texas), along the Rio Grande River, 300 miles from Houston. The county is largely Latino and is the second-poorest county in the United States. Most Latinos there are migrant workers who live substantially below the poverty level. From this population, we recruited obese Latina women in support groups; for example, we recruited schoolteachers as a group. We randomized groups, not individuals, so that participants would already have a self-established social support system. We also enlisted participation of local community leaders, such as the local nurse, disc jockey, and sheriff.

Weight was our primary outcome measure. Using traditional foods, we replaced flour tortillas with corn tortillas; replaced lard with other oils; and made other substitutions. We wanted to introduce a healthy diet to the study subjects while allowing them to retain as much of their traditional Latino diet as possible.

We also encouraged groups to walk together, and we designed behavioral modification strategies that were adapted to the culture. Reward systems for walking and other behavioral strategies were important. We held award ceremonies, at which local grocery stores presented fruit baskets to study participants.

The study resulted in a mean weight loss of nearly five pounds per participant. Many women did lose a substantial amount of weight, but overall weight loss was disappointing. Participants maintained the weight loss for a while but then started to regain the weight. The problem, I think, was that the study was administered from 300 miles away.

In another study, the target population of which was obese mothers, we included the whole family because social support was an important element of the study design. Families were randomized to treatment or control groups; the control group consisted of mothers only. The groups did not speak or read English—or read Spanish—very well. We therefore used illustrations in which food groups were indicated in red or in green. Green indicated fruits and vegetables, and red indicated higher-fat foods. We taught study participants to shift the highest proportion of foods in their diet—and thus colors on their progress chart—from red to green.

Among participants in this study, mean change in BMI was two to three units—double the weight loss seen in the Starr County study—and weight loss was maintained reasonably well during the treatment year. The control group also lost weight but not as much as did the treatment group. For a subset of patients with a record of acceptable dietary choices, self-reported data about intake of calories and fat grams showed improvement in both the treatment group and the control group.

We conducted our third, most recent study in Houston using the same interventions and culturally relevant strategies but adding use of orlistat, a weight loss drug that blocks metabolism of about a third of fat consumed. The data are currently under review but are favorable so far. Subjects have lost about 9% of their body weight—a loss of about 20 pounds in these Latina women. The combination of pharmacotherapy and lifestyle modification thus seems to be effective.

So, what do we know? The prevalence of obesity in minority populations in the United States is very high and is accompanied by lack of pressure to lose weight. We found that many people don't care about losing weight, and it's difficult to recruit them for a weight-loss program. Those who participate have higher attrition rate and lose less weight. We need to conduct behavioral analysis of weight management within the Latino culture to identify the factors contributing to obesity and the barriers to losing weight.

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Moving from a clinical to a public health point of view, how do we address obesity? First, reduce poverty. If we raise the income level of Latinos, we'll reduce obesity. How do we do that? I don't know. Second, the population approach is the only practical strategy. Clinically, we'll make a small difference, and we obviously need to do that. But, again, if I were in charge of treating obesity in this country, I'd do things like bring physical education back into schools and require health education. I'd make sure that people had equal access to treatment and that fresh fruits and vegetables were more available and subsidized. I'd definitely focus on prevention, working with children rather than adults. If we apply all our strategies among children, we might have a chance to reduce the prevalence of obesity and reverse its upward trend. ❖

After Dr Foreyt's presentation, the panel discussed some of the issues raised:

Dr Dietz: Let me begin with a comment. We're beginning to understand from objective data that the availability of grocery stores in many impoverished neighborhoods is sparse. A study from Philadelphia suggests that mortality rates from nutritional diseases corresponds geographically to the density of supermarkets.[21] How do we craft dietary or physical activity strategies in neighborhoods that aren't safe or that lack access to affordable sources of food and fresh fruits and vegetables?

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Dr Foreyt: Dr Carlos Poston was the senior investigator on a study in which we randomly picked a low-income neighborhood and a high-income neighborhood in Kansas City. We sent students to observe presence of sidewalks and grocery stores, items for sale in grocery stores and taverns, and every consumer item that we thought could possibly contribute to obesity. Of course, we also examined prevalence of obesity in each neighborhood. This prevalence was substantially higher in the low-income neighborhood than in the high-income neighborhood that had all the benefits of sidewalks, parks, and stores. We found that the environmental determinants of obesity were very strong in the low-income neighborhood.

So, how do you raise the income level and make more places to walk safely? That's what all communities are facing, and it's the issue I'm consulting with colleagues about at the Marshfield Clinic in Wisconsin. They invited to a symposium all sectors of the community: elected politicians, teachers, cafeteria and school employees, and parks and recreation staff. Coalitions were formed, each of which was given a small project—something that would make neighborhoods safer. Grassroots efforts, small steps at the local level, are the way to do it.

Dr Karanja: It's also a political issue. Zoning rules are established by local governments, not by businesses. In Portland, Oregon, the Center for Health Research has formed an alliance with the Food Policy Council (a county organization that includes farmers and businesses) to present to the government our case for health. The government has the power to determine how sidewalks are maintained and where markets and parks are to be located.

Dr Dietz: Do you have focus group data explaining the difference in fruit and vegetable consumption on either side of the US-Mexico border?

Dr Foreyt: Information gathered by dietitians in West Texas towns along the border showed that price and accessibility were factors. Mexico has an excellent cuisine, but on that side of the border, people are very poor, many foods are inaccessible, and many people continually move to follow the crop harvest.

Dr Dietz: A viable strategy is to connect growers and institutions. Six of 12 states that receive funds for obesity work are agricultural states: North Carolina, Florida, Texas, California, Washington, and Michigan. We've begun to explore how to build connections between producers and schools. A barrier to this connection is that producers can't deliver unprocessed produce to a school. We must consider innovative ways to make those connections work.

Community gardens are also a viable strategy, and they provide benefits through both physical activity and the produce grown.

Dr Karanja: Mexican Americans and African Americans are very embedded in their families. They do better when they're in the systems they know and understand.

Dr Foreyt: And that means a system that includes grandmother, mother, child …

Dr Karanja: Exactly. To promote breastfeeding among Native Americans, we go to the great-grandmothers—women who have experience with breastfeeding. Most mainstream institutions focus on the individual person, and this approach doesn't work very well with minority populations.

Dr Caplan: In what kind of settings might we most effectively care for minority populations?

Dr Foreyt: We must care for these people within the context of their own families or existing systems instead of trying to pull individual people into clinics.

Dr Dietz: What about churches?

Dr Karanja: Everybody descends on the black churches, and the ministers say, "I'm here to minister to people, not to advance your research agenda." To make the effort more organic, some seminaries are building a health curriculum to create health ministries.

Dr Robinson: Two factors are important when working with communities. First, the organization must have a real presence in the community through outreach and by ensuring that members of targeted groups work as staff members delivering programs and fill positions of power or leadership.

The other key factor is building partnerships, a process which takes a lot of work. Programs can succeed in communities and neighborhoods only with the help of partnerships

that give ownership of the program to the community itself. The community must feel that they are part of the entire program. ❖

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A Good Heart

A good heart is better than all the heads in the world.

— Edward Bulwer-Lytton, 1803-1873, writer