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Culturally tailored foods and CVD prevention

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Abstract

Culture plays an integral role in people's food choices and lifestyle decisions. Health care messages may conflict with cultural beliefs for many immigrant, minority, and low income populations. The multiple ways that culture can positively and negatively affect disease risk must be utilized in the development of 'culturally tailored' messages or interventions. Only through the creation of interventions that are meaningful and culturally-relevant can successful behavior stability or change occur. The recognition of current health-promoting factors is important to develop rapport and credibility with individuals and population groups in order to reduce the risk of CVD and other lifestyle-based chronic diseases for optimal health.

Keywords

Cardiovascular disease; culture; dietary interventions; cultural tailoring; immigrants; dietary acculturation

Introduction

Researchers in the biomedical sciences often assume that their discoveries will be well-received and incorporated into people's daily lives. This is particularly true when it comes to nutritional interventions and dietary recommendations that can clearly improve health and prevent disease. Unfortunately, knowledge alone does not always result in adoption of health-preserving behaviors. For example, numerous food items (nuts, garlic, oatmeal, legumes) have shown cholesterol-lowering benefits in clinical trials which may subsequently reduce risk of cardiovascular diseases (CVD)¹. The implicit assumption is that once the lay public knows of the benefits of a given functional food then they will embrace the dietary change. This naiveté about the acceptance of a lifestyle modification inhibits the translation of clinical trials to community practice by omitting the critical step of confirming the cultural relativity of the proposed action. Lifestyle changes are not that easy or simple for anyone and matters are more complicated with people from different cultures and belief systems.

The cultural role of food is complex for each individual. If dietary recommendations conflict with cultural meaning of certain foods, they will not be followed. 'Culturally tailoring', or adapting a dietary message can promote acceptance of a dietary change to reduce CVD risk. In fact, the use of positive health-promoting foods and dietary practices already in place, can boost the success of dietary changes².

CVD risk in the USA

CVD is the leading cause of death in the United States. The term CVD includes coronary heart disease, coronary artery disease, hypertension, and dyslipidemia. When combined with stroke and other cerebrovascular diseases, they account for 32.5% of adult deaths annually³. In addition, at least 100 million Americans have high cholesterol and are at risk of heart disease. CVD and chronic disease risk is greater for minority, immigrant and low-income populations in with African Americans and Mexican Americans having the highest rates. Thus, the prevention and treatment of risk factors for CVD, including hypercholesterolemia, in ethnically diverse populations are important to public health.

The role that good nutrition, and in particular functional foods, plays in prevention and treatment of hypercholesterolemia has long been recognized. The National Cholesterol Education Program (NCEP) Adult Treatment Panel III and the American Heart Association suggest use of functional foods or foods high in components that reduce cholesterol as options in current recommended dietary interventions⁴. Some of these are total dietary fiber and soluble fiber found in oat bran, whole grains, legumes, and fruits and vegetables. Inclusion of fish or other sources of omega-3 fatty acids, plant sterols, and some legumes varieties can lower blood cholesterol levels. Dietary reductions in trans fat, saturated fat, and dietary cholesterol are also prime recommendations to reduce risk of heart disease. These seemingly modest changes in dietary intake can delay, if not prevent, the development and progression of heart disease¹. However, are these changes truly modest and easy to make? For many, the answer is no.

Role of culture in food choices

Before interventions can be ‘culturally tailored’ to a group, we first need to know the role of foods in a given culture. Culture, broadly defined, influences all aspects of food choices. Each of our cultural experiences consists of beliefs, values, and attitude towards all aspects of our lives including food choices, meal patterns, and physical activity⁵. Our place of birth, religion, language, socioeconomic status, age, ethnicity, gender, birth order, and household composition are but a few of the characteristics that shape our culture and our resulting lifestyle habits. Culture is not static and these views can change over time as we experience different events across the life cycle. Our personal identity is reflected in the foods we choose to eat, the way they are prepared, when, where, and with whom we dine.

Culturally acceptable food availability may range from settings such as supermarkets, the school cafeteria, farmer’s markets, street vendors, convenience stores, vending machines, fast-food restaurants, gourmet restaurants, our own gardens, to picking through garbage for leftover scraps. The more widely available a food, the easier it is to add to our diet. Food availability is tightly linked to economic factors. People who have recently immigrated or experienced some other change of circumstance such as becoming unemployed or homeless may not be able to afford unlimited access to some foods. Poorer neighborhoods frequently lack supermarkets with competitive prices for goods, including fresh produce. Thus, when health professionals advocate increased consumption of fruits and vegetables, our target audience may be unable to achieve these goals even if such foods would be culturally acceptable or even preferred.

When some groups immigrate to a new country or area such as the US, they gain access to foods that were considered high status at home, but now they are readily available and less expensive. The impetus is to consume more of them rather than the traditional foods which may be reminders of their pre-immigration status in a negative way. Furthermore, traditional foods may be unavailable, of poorer quality than in the host country, or cost more. Finally, many women post-immigration take on employment outside of the home which limits their time to prepare traditional foods.

Eating habits often change in response to education, relocation, the appearance of new foods in the supermarket or new restaurants in the neighborhood, media information, the development of a chronic disease like CVD, and other influences. This process of adopting beliefs and practices of a dominant or influential culture known as acculturation, is perhaps most visible among people who have recently relocated to a new country.

Certain foods may have culturally or regionally based biases that inhibit or promote consumption or purchase. For example, a particular food may be viewed as “low status” or “high status”, or associated with a particular level of socioeconomic attainment. Symbolically, most cultures value meat as a high status food⁶. Meat and fats or oils have been in historically short supply around the world. Baked beans or other dried bean varieties may convey the image of low-cost inexpensive foods and be dismissed as “poor people’s food”. However, consumer attitudes toward black beans and chickpeas are more positive as evidenced by increased sales of these in higher socioeconomic households⁷. Recent research has demonstrated the effectiveness of some legume varieties in reducing blood cholesterol levels. Dietary recommendations to reduce CVD risk through consumption of non-meat protein sources that are also high fiber such as legumes, may be more effective if legumes are promoted as ‘trendy’ or ‘high status’ like black beans.

In addition to the many sociocultural roles of foods such as their use in celebration or comfort, religion, or defining us as individuals, some cultures have specific views of foods as inherently unhealthful. Many cultures believe that health depends upon balance of bodily fluids or natural forces. Imbalance of these forces, particularly through diet or lifestyle choices, can result in disease. While biomedicine may scoff at such non-scientific explanations for illness, the relevance of balance in the minds of lay persons remains strong. Two common examples such as ‘hot and cold’ and ‘yin and yang’ are found in many Latino, Middle Eastern, and Asian cultures⁵. The foods are believed to strengthen or give these characteristics to people who eat them. To restore the imbalance that causes disease or acute illness, foods of the opposite type are ingested to restore balance. The characteristics of ‘hot and cold’ or ‘yin and yang’ are related not to the temperature at which foods are eaten or to their flavor but instead to properties that may relate to the caloric density of the food. In some instances, recommendations may conflict with the belief system of the client or patient.

Food preparation and types of foods eaten depends upon the ability and facilities to store and cook food, as well as the time needed to prepare foods. If refrigeration is not available or unreliable, foods that spoil easily must be purchased daily. It may be a hardship or impractical for the head of household or person responsible for food preparation to go shopping daily. Methods of preparation are learned and culturally based. For example, while broiling fish may be better for one’s heart than frying breaded chicken in lard, these changes are dependent upon having access to a broiler and knowing how to prepare fish. To a nutritionist, the change may seem simple, but to a woman concerned about her family liking the food she prepares, the change may be a daunting task⁸.

Culture change and CVD and diet

The Dietary or Nutrition Transition is the shift from a traditional diet to one similar to that of the Western or industrialized nations. Traditional diets are typically high in fiber, low in saturated and trans fat, high in complex carbohydrates, and frequently have a variety of fresh vegetables and fruits that complement a few staple food products that are consumed daily. The Western diet is high in calories, saturated and trans fats, sugar, salt, and low in complex carbohydrates and fiber. For many cultures around the world, the Dietary Transition has come to them as a function of the globalization of the world economy and access to foods. Low cost

fats and oils make it easier to include them in foods that used to be reserved for special occasions or celebrations⁹.

It is a common perception that diets of less-acculturated groups are healthier than dietary intake patterns after assimilation. For example, Latin American immigrants to the United States usually adopt negative dietary habits, such as frequently consuming fast foods, larger overall portion sizes, having diets high in saturated fats, and consuming fewer fruits and vegetables. Change in the diet can result in excessive weight gain and foster the development of chronic diseases¹⁰. These replacement foods are considered to be more “mainstream American” foods, and may hold a higher status than traditional foods among acculturating Hispanics, and thus be found to be more desirable. Some mainstream American foods are convenience food items like pizza, hamburgers, and fast foods that may ease the burden of those pressed for time due to work, school, and family responsibilities¹⁰. In contrast, traditional Mexican foods such as beans, corn tortillas, potatoes, eggs, chili peppers, tomatoes, and fresh fruits and vegetables are health promoting.

Culturally tailoring interventions for CVD

The increased prevalence of CVD, type 2 diabetes and obesity among African Americans, Hispanics, Asians, and other minority populations illustrates the need for culture-specific associations between food and health that will be culturally relevant. Tailoring can have many meanings. The approach may be to adapt an intervention or promotion to cultural foods and behaviors as discussed previously. Counseling about lifestyle modifications to lower risk can have the goal of reducing intakes of calories, total and saturated fat without changing the positive aspects of a person’s diet². Another form of tailoring is to prune out irrelevant or nonessential information and provide active messages. The recommendation to eat more beans may be more meaningful than the generic “eat foods high in fiber.”

The consumption of beans and other legumes is one intervention that may help reduce hypercholesterolemia and reduce CVD risk¹. Beans are part of many traditional diets before immigration. From fava beans in the Middle East, to pinto beans in Latin America, or black-eyed pea varieties in Africa, legumes are a staple food product around the world. Today, many legume types such as black beans and chickpeas are enjoying high status in the culinary world for their nutritional benefits. Continued promotion of traditional foods like legumes as a marker of heritage retention and ethnic pride may promote better health⁷.

Helping people make positive dietary changes to reduce CVD risk

Healthcare practitioners recognize that changes in lifestyle can prevent or reduce the burden of chronic diseases. As scientists and health professionals, we need to appreciate the type of beliefs held about food and their rationale to maximize health promotion and risk reduction for all diseases, including CVD. However, many people do not recognize the connection between the foods they eat and the activities they do and the development of chronic disease. They rely on their senses of everyday life. Everyday life may suggest that it is fate – or the government – or just the way things are that predicts one’s health or longevity. The notion of changing these factors can be an abstraction. Until a disease is interfering with one’s life, it is easier to deny the signals or knowledge that comes one’s way. It is often only when a condition begins to affect our lives that we decide to make a change.

Although culturally tailoring a health message can be beneficial, it is essential to remember to avoid stereotyping and thinking that a “one size fits all” approach will work for all members of an ethnic or minority group. Here are some suggested approaches for success. Focus on each person as an individual, and assess his/her current situation. Learn about the culture as a whole. Place the person’s food habits within cultural context. The cultural context will vary as

described previously with the person's age, length of time since immigration, degree of acculturation and a host of other factors. Food lists for particular cultural groups are available, but these lists disregard individual differences within a group. Food lists can promote assumptions about behaviors and overlook the importance of talking with people about the variety of foods they eat and their methods of preparation. Culturally tailored and appropriate health messages must be meaningful to the target person in order to work.

Assessing the degree of knowledge and understanding of CVD is essential before suggesting changes. In a recent survey of young adult African Americans in metropolitan Phoenix, we found that 70% of the participants knew that lowering cholesterol intake would reduce CVD risk. Unfortunately, only 49% of these same respondents understood that reducing animal products in the diet would lower CVD risk. There appears to be a knowledge gap that animal products contain cholesterol¹¹.

How to culturally tailor your CVD prevention message

When culturally adapting an intervention it is important to listen to your participants or clients and ask questions about the information you provide to them. While many people will respond in a socially desirable manner, some will tell you if there are cultural conflicts with the nutritional advice provided. It is essential to check the research literature for programs or interventions that have been successful with the groups of interest to you or with a similar topic regardless of population. Although often harder to find, information on programs that did not work is equally important. Be alert for interventions that focus extensively on improving knowledge, but not checking for subsequent or matching behavior change. Increasing knowledge does not mean that people comply with a recommendation. For example, after over 25 years of the message to eat more fruits and vegetables, only 40% of the US population meets recommended intakes, yet knowledge of the guideline is relatively high¹².

Find out what your target population knows about CVD and its causes after your literature review and asking some clients their views. Several focus group sessions for formative evaluation can be invaluable in developing ways to tailor an intervention or health message to prevent or reduce CVD risk. The focus groups can illuminate some of the culturally-specific rationales behind food choices as well as beliefs about CVD. In a group setting, people may be more willing to talk and discuss cultural matters than when they are in the vulnerable role of a patient or participant alone. For some groups a short questionnaire may be appropriate

When talking with participants from a cultural group, make an effort to identify family dynamics and who is in charge of the food preparation. When one family member develops a chronic disease like CVD or diabetes, the whole system of family dynamics can be altered, including the food and nutrition components. Culturally tailoring a dietary intervention to reduce CVD risk will not work if directed to a man who does not prepare the food, nor if focused on the food preparer if the other members of the family refuse to eat foods made differently. Find out who are the most influential members of the family in the culture of interest and to whom you should speak. By learning who makes decisions about food purchases, meal preparations, and who shops, these people can be enlisted for help.

Working with the community is essential for successful rapport and your own credibility. Identification of the resources and strengths such as presence of food banks, local farmer's markets, service agencies, religious organizations, as well as the weaknesses or deficits can allow you to direct messages that can be accomplished. Emphasis on eating more fruits and vegetables and less red meat are meaningless if these are not readily available to your target audience.

Most importantly, remember to have respect for cultural practices and encourage people to retain healthy traditional food practices. Helping people find modifications that decrease saturated fat, total fat, and salt or increase the level of fiber can be done when we work together to preserve the spirit and meaning of traditional foods. In a recent focus group with African American women in Phoenix, one participant summed up the dilemma aptly:

“...a lot of times I mean ground turkey tastes good, but everyone don’t know that. Especially in our culture ...see that’s considered white folks food, you know it is. So if they see that ... there is other alternatives and there is other things that you can do... [they might change], you know. I mean black folks aren’t gonna go buy some tofu, we’re just not gonna go buy that kind of stuff, there is a few but we don’t usually do that....”

In summary, despite years of clinical trials and scientific evidence to reduce the burden of CVD, many people in the US do not comply with the dietary and lifestyle recommendations still. Working within people’s belief systems and their current lifestyles by making manageable and willing changes can be more effective than large-scale changes that are unsustainable. Culturally tailoring messages is one effective way to reduce CVD risk and improve health.

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