Focus Group Assessment of Culturally Specific Cholesterol-Lowering Menus for Mexican Americans

M. Shah, Ph.D.[1], Y. Coyle, M.D.[2], A. Kavanaugh, M.D.[3], B. Adams-Huet, M.S.[4], P.E. Lipsky, M.D.[5].

[1]Assistant Professor, Texas Christian University, Fort Worth, Texas; [2] Associate Professor, Department of Internal Medicine, University of Texas Southwestern Medical Center, Dallas, Texas; [3] Professor, Division of Rheumatology, Allergy, and Immunology, Center for Innovative Therapy, University of California in San Diego; [4] Faculty Associate, Department of Internal Medicine, University of Texas Southwestern Medical Center, Dallas, Texas; [5] Scientific Director, National Institute of Arthritis & Musculoskeletal & Skin Diseases, Bethesda, Maryland.

Corresponding Author: Meena Shah, Ph.D., Assistant Professor, Department of Kinesiology, Texas Christian University, TCU Box 297730, Fort Worth, Texas 76129. Tel. 817 257-6871, Fax 817 257-7702, E-mail: M.SHAH@TCU.EDU

Submitted June 24; Revised and accepted December 1, 2003.

Acknowledgement: We thank Ms. Katia Palek for assistance with the study and Ms. Giselle Huet and Dr. Michael Simpson for comments on the paper.

Abstract

English:

This study focus tested the acceptability of a set of six 1400 kcal and six 1800 kcal culturally appropriate cholesterol-lowering menus developed for low-income Mexican-Americans with systemic lupus erythematosus (SLE). The focus group, made up of 11 low-income Mexican-American women without SLE, found the menus to be generally culturally valid, palatable, easy to prepare, affordable, and the ingredients easily available. Most 1800 kcal menus were found to be filling whereas most 1400 kcal menus were found to be non-satiating. The major suggestions made that would not adversely affect the dietary goals included providing more food in some of the breakfast and lunch menus and less in many of the dinner menus, reserving cooked breakfast for the weekends, and eating salad without oil dressing. The suggestion to include more salad with avocados and guacamole would be appropriate provided these ingredients are eaten in moderation. The subjects made a number of comments that may challenge the dietary goals. They were not willing to choose low-fat milk and drink enough milk, prepare egg dishes without egg yolk, and choose corn tortillas rather than flour tortillas. They also suggested providing some high saturated fat and high cholesterol desserts and entrées and believed that certain low-fat foods are less affordable than the high-fat counterparts.

Spanish:

Este studio se centró en determinar el nivel de aceptación de un grupo de menús para bajar el colesterol de seis menús con 1400 kilocalorias y seis menús con 1800 kilocalorias apropiados culturalmente y desarrollados para Mexico-Americanos de bajos recursos económicos y con Lupus Eritematoso Sistémico (LES). El grupo focal, compuesto de 11 mujeres Mexico-Americanas sin LES manifestó que los menús eran en general válidos culturalmente, apetitosos, fácil de preparar, económicos, y que los ingredientes eran fáciles de conseguir. La mayoría de de los menús que contenían 1800 kilocalorIas fueron identificados como menús que llevaban a un nivel de saciamiento mientras que los de 1400 kilocalorias no producían una sensación de llenura. Las sugerencias mayores planteadas y que no afectarían los objetivos nutricionales incluIan el proveer más comida en los menús de algunos desayunos y almuerzos y menos en muchos menús de la cena, reservando los desayunos que requieren cocción para los fines de semana y comiendo ensalada sin salsa de aceite . La sugerencia de incluir mAs ensalada con aguacates y guacamole seria apropiada si estos ingredientes se consumieran con moderación. Los participantes dieron varios comentarios que retan los objetivos nutricionales. Ellos no estaban dispuestos a seleccionar la leche descremada y a tomar mAs leche, preparar platos con huevo sin yema y escoger tortillas de maIz en vez de tortillas de harina. Ellos también sugirieron proveer algunos postres y platos que tienen un alto contenido de grasas saturadas y cholesterol y creIan que ciertas comidas bajas en grasa eran más costosas que los equivalentes los cuales eran altos en grasa.

Key Words: focus group; cholesterol-lowering menus; Mexican-Americans

Introduction

Prevalence of myocardial infarction (MI) and hospitalization for acute MI is higher among Mexican American women than among non-Hispanic white women (Mitchell, Hazuda, Haffner, Pattterson, & Stern, 1991; Nichaman, Wear, Goff, & Labarthe, 1993). Mexican American women are also more likely to develop systemic lupus erythematosus (SLE) than non-Hispanic white women (McCarty, Manzi, Medsger, Ramsey-Goldman, LaPorte, & Kwoh, 1995). Patients with SLE have a high prevalence of atheroslcerotic cardiovascular disease (Abu-Shakra, Urowitz, Gladmann, & Gough, 1995; Boumpass, Austin, Fessler, Balow, Klippel, & Lockshin, 1995; Haider & Roberts, 1981; Johnson, Nived, & Sturfelt, 1989; Petri, Perez-Gutthann, Spence, & Hochberg, 1992) and the mortality rate attributed to atherosclerosis is nine-times greater among patients with SLE than among matching healthy controls (Johnson et al.). Having SLE may thus further exacerbate the risk for CVD in Mexican American women. A risk factor for CVD is high levels of low-density lipoprotein (LDL) cholesterol (Petri et al) and this is more prevalent among SLE patients than among healthy controls (Ettinger, Goldberg, Applebaum-Bowden, & Hazzard, 1987).

LDL cholesterol can be lowered by following the Step I or Step II diets recommended by the National Cholesterol Education Program (NCEP), Adult Treatment Panel (ATP) II (1993), and more recently by following the Total Lifestyle Change (TLC) diet recommended by the NCEP, ATP III (2001). Although these diets have been tested by many studies (NCEP, ATP II, & NCEP, ATP III), a review of the literature failed to find any culturally sensitive cholesterol-lowering menus for Mexican Americans. Given the high prevalence of cardiovascular disease among Mexican-American women (Mitchell et al., 1991; Nichaman et al., 1993), especially those with SLE (Abu-Shakra et al., 1995; Boumpass et al., 1995; Haider & Roberts, 1981; Johnson et al., 1989; Petri et al., 1992), we developed culturally sensitive cholesterol-lowering menus for Mexican-Americans of low socio-economic status and had them focus tested by a group of low-income Mexican American women before they were given to SLE women of the same background. The menus contained Mexican-American foods and reflected the Step II goals (< 200 mg cholesterol, < 30% energy from fat, <7% energy from saturated fat, and < 2,400 mg sodium per day) (NCEP, ATP II). These goals are similar to the TLC goals (NCEP, ATP III) with the exception that the latter recommend 25-35% energy from fat.

Focus group research is a qualitative approach for eliciting the perceptions of a defined population (Basch, 1987). Our focus group study assessed the acceptability of the menus by addressing a list of questions. Some of these questions were based on the findings by another focus group study (Palmeri, Auld, Taylor, Kendall, & Anderson, 1998) on the nutrition education needs of low-income Mexican-Americans. The participants in that study requested information on low fat recipes and food preparation techniques for meals that are nutritious, easy to prepare, affordable, and used commonly available ingredients. The present study presents the results from the focus group discussion and makes suggestions on how to improve the menus before they were implemented.

Methods

Focus group interviews are most useful when conducted with a homogenous sample that contains 4 to 12 people (Stillman, 1992). Our focus group consisted of eleven Mexican-American females without SLE. All the participants were recruited from the same place, a parent-training program known as AVANCE in Dallas, Texas. The participants were employees of the program and many of them had been parents served by AVANCE before being hired and trained to serve other parents in this program.

The menus were focus tested by Mexican-American women without SLE rather than those with SLE due to difficulties in recruiting a number of Mexican-American women with SLE at the same time. The Mexican-American women without SLE were, however, of the same socio-economic status as the Mexican-American women with SLE seen at the Parkland Health and Hospital Systems (PHHS) in Dallas.

The session was conducted for about 2 hours in an elementary school classroom that was used by the AVANCE program. To prevent bias, the session was not moderated by any of the study researchers. It was moderated by a hired and trained bi-lingual Mexican-American professional who worked as a Pediatric Social Worker at one of the PHHS Community Oriented Preventive Care clinics. The session was moderated in Spanish. Each subject was paid $25 for participating.

The focus group assessed a set of six 1,400 kcal Mexican-American menus and a set of six 1,800 kcal Mexican-American menus (Tables 1-6). The menus were presented to the subjects in a written form. The menus were developed following consultations with 2 Latino research assistants and using an ethnic-specific recipe book (Spitler, 1996). The menus reflected the Step II goals (NCEP, ATP II, 1993). Each menu also included 2-3 servings of dairy and at

least 5 servings of fruits and vegetables. The set of 1,800 kcal menus were the same as the set of 1,400 kcal menus except that more food items or larger amounts of food were allowed in the 1,800 kcal menus.

The focus group assessed the acceptability of the menus by keeping the following questions in mind when analyzing each of the 12 menus: 1) Are the menus representative of the food eaten by Mexican-Americans? 2) Do the menus look appetizing? 3) Would the food on the day's menus fill you up? 4) Would you find the items on the menus fairly easy to prepare? 5) Are the ingredients used easily accessible to you? If not can you suggest some low-fat alternatives? and 6) Are the ingredients used within your budget? If not can you suggest some low-fat low-sodium alternatives?

Before the session began, the moderator collected information on the age, education, country of birth, and the number of years residing in the USA of each subject. The session was audio taped and translated to English by a bi-lingual research assistant from the study team who was present at the session. The presence of our bi-lingual research assistant at the focus session is important since J. Morse (1997) has suggested the presence of one or more of the researchers can help with insights into the context of the discussion that readers of the transcripts or other material who were not present lack. For example, the researcher(s) present will remember non-verbal expressions that may reveal more than the written transcript (Morse). The results presented below are common themes based on the translated audio tape and insights from the bi-lingual study researcher. The study was approved by the UT Southwestern Medical Center IRB.

Results

Of the 11 participants, one was in her 20's, 5 in their 30's, 4 in their 40s, and one did not provide information on her age. Nine out of eleven participants were born in Mexico and the remaining two were born in the USA. The participants born in Mexico had been living in the USA for 9.1+5.3 years (one subject born in Mexico did not provide information on how long she had been in the USA). Four of the 11 participants had attended college, and the rest were educated at high school or lower level of education.

The set of six 1400 kcal and six 1800 kcal Mexican-American menus are presented in Tables 1-6. Because the 1400 kcal and 1800 kcal menus are very similar, the focus group responses to these menus were consolidated but any differences by calorie content were noted.

Menu 1 breakfast containing toast, margarine, milk, and grapefruit was considered by all the focus group members to be too little for their husbands and in the case of one participant for herself. Suggestions were made to add fresh fruit juice, eggs, and yogurt. The general consensus was to replace skim milk with 2% milk and this applied to all the breakfast menus. Grapefruit was not a popular fruit among some participants. Menu 2 breakfast, containing cereal, milk, and banana, was preferred over the menu 1 breakfast but they would add some bread with butter and jelly. Participants suggested including coffee with every breakfast. Menu 3 breakfast of huevos rancheros, refried beans, and orange juice was considered "yummy". However, the participants would consume a cooked breakfast only during the weekends when they had more time to prepare it and when family members were at home. According to the participants, canola oil used to prepare refried beans was considered very acceptable in the Mexican-American community, and the group suggested drinking a whole cup of juice rather than the ¾ cup shown in the menus. None of the focus group members recognized farina in the breakfast menu 4 and they suggested replacing papaya with papaya juice or mixed fruit juice, and not serving corn tortilla without rice and beans. Breakfast menu 5 containing pancakes, syrup, strawberries, and milk was well liked but they would eat this breakfast only during weekends or holidays. One suggestion was to add sugar to the milk. Menu 6 breakfast including fried eggs whites, corn tortillas, refried beans (1800 kcal only), and milk was considered good for the weekend although two participants said that they would not eat eggs without the yolks. One participant commented that kids would like this breakfast of egg whites only. The group suggested replacing corn tortillas with flour tortillas.

Menu 1 lunch consisting of beef and cheese enchiladas, refried beans, tortilla (1800 kcal only), jicama salad (1800 kcal only), and coffee was considered good but needed modification. The 1400 kcal menu was not filling enough. Also they would eat enchiladas only with white cheese but not meat, and suggested leaving the jicama salad plain, or dressing it with lemon juice rather than oil dressing. The group suggested replacing coffee in all lunch and dinner menus with diet soda, water, juice, lemonade, or tea. Alternately this menu could be replaced with lean meat, salad, and vegetables. Lunch menu 2 containing beef and bean burrito, tortilla, milk, refried beans (1800 kcal menu only), and cactus salad (1800 kcal menu only) was considered good but the quantity in the 1400 kcal menu was considered too small and they would add a burrito or rice. When assessing the 1800 kcal lunch menu the general

consensus was that the participants would not eat tortillas with a burrito. The participants disliked the idea of drinking milk during lunch and dinner and suggested replacing it with the drinks mentioned above. Menu 3 lunch including black bean soup, tortillas, rice (1800 kcal only), and milk was considered too small at the 1400 kcal level and five participants did not like black beans. Menu 4 lunch, made up of scrambled eggs served with crisp tortilla strips, refried beans, and tortilla (1800 kcal only), was considered good but more appropriate as a weekend breakfast since they eat eggs for breakfast but not lunch. Lunch menu 5 including chicken and cheese rellenos, refried beans, and tortilla (1800 kcal only) was considered good or perfect except for the fact that the low fat cheese used in the rellenos was considered unaffordable. Lunch menu 6 including tortilla soup, rice, and mango was well liked but the group suggested eating a whole mango rather than half, and including a salad, avocado, and guacamole. Additional suggestions regarding the lunch menus included serving rice with beans and providing entrees such as tacos, tortas de papa (fried potatoes with cheese), gorditas (corn powder cooked in water, and eaten with eggs, ham, or cheese), pozole (soup containing pork meat, cabbage and other vegetables, and herbs), barbacoa (brain served with onions, salad, cilantro, and rice), coditos (a soup with spices, chicken broth, vegetables, and/or noodles), tamale, pasta, fish, and "lots of salad" (tomatoes, cucumber, carrots, avocado, and lettuce).

Dinner menu 1, containing taco picadillos (contained pork), rice, salsa, tortilla (1800 kcal only), and milk, was considered too filling for the evening meal at both the energy levels and milk was unacceptable for dinner. The pork dish was viewed unfavorably because they do not commonly consume it, especially for dinner. The participants recommended not including a tortilla if there is a taco. The group liked the tamales, salsa, rice, and tortilla (1800 kcal only) in dinner menu 2, but the amount of food at both the energy levels was considered too much for themselves but probably more appropriate for their husbands. They did not like the idea of serving a tortilla with tamales. The participants did not seem very excited about dinner menu 3 consisting of stew, rice, celery (1400 kcal only), tortilla (1800 kcal only), jicama salad (1800 kcal only) and cantaloupe, but considered it good anyway. They felt that it was too big and therefore more appropriate for lunch. If they ate it for dinner, they would leave out the cantaloupe, rice, and coffee. They would also put the celery in a salad. The dinner menu 4 including fajitas, orange cilantro rice, cactus salad, and refried beans (1800 kcal only) was considered fine except that the 1800 kcal dinner menu was too heavy. They like rice prepared in different ways. They also like salads, especially the prickly pear salad. Dinner menu 5, including chicken mole, tortilla, rice, and cactus salad (1800 kcal only), was considered good but too filling even at the 1400 kcal level. The participants suggested not combining mole with cactus salad. Dinner menu 6, including steak and tomatillo with avocado sauce, refried beans, cactus salad, and rice (1800 kcal only) was well liked but contained too much food at both the energy levels. When asked for further comments regarding the dinner menus, the participants recommended using left-overs from lunch for dinner, and not including very greasy foods.

There were no objections to fruit as snack, but milk was found unacceptable. The participants suggested including food items such as arroz con leche (dessert made with rice condensed milk but eaten more as a snack), ice cream, and fruit salad as snack.

Overall the 1800 kcal menus were found to be more attractive. Most of the participants considered the meals easy to prepare. Most participants do not like to eat in restaurants though they do eat out at least once a week. All the ingredients in the menus are easily assessable to them except farina, which they were not familiar with. All the participants believed that they could afford the low-fat foods, but they considered the healthier foods to be more expensive. When asked if they had any suggestions for low-fat, low-sodium foods, their preference was to eat less of the high-fat, high-sodium foods rather than substituting anything. The participants eat more meat in the US than in Mexico because meat is more affordable in the US.

Discussion

This is the first study that has examined the acceptability of culturally specific cholesterol-lowering Mexican-American menus by a focus group of low-income Mexican Americans. The results, however, need to be confirmed by a number of focus groups. A possible limitation of the study is that the menus although developed for Mexican American women with SLE were assessed by Mexican American women without SLE. This should not influence the assessment of the menus, however, since the focus group was of the same socio-economic status as the Mexican American SLE women seen at the PHHS clinic. Another possible limitation is that the menus were presented to the focus group in a written form only, which may limit their assessment. Future studies should consider giving the participants opportunities to prepare and taste the foods presented in the menus prior to the focus group discussions.

Overall the menus, especially the 1800 kcal menus, were considered more attractive. The menus were generally found to be culturally specific, palatable, easy to prepare, affordable, and the ingredients easily available. The participants, however, made a number of suggestions, which will be discussed below. Of these some would be easy to incorporate without affecting the dietary goal, some may actually enhance the dietary goals, and others would pose a challenge to the dietary goals.

Of the suggestions that would be easy to incorporate without affecting the dietary goals, the main issue was regarding the distribution of food. Although the lunch and dinner menus were mostly well liked, some of the lunch menus were not considered filling enough especially at the 1400 kcal level, whereas many of the dinner menus were considered too filling. The explanation was that Mexican-Americans, even those who go to work, eat more for lunch than dinner or breakfast. Increasing the food content at lunch at the expense of dinner should be fairly easy to incorporate. Also, there was one menu, menu 2 at the 1400 kcal level, in which breakfast as well as lunch, were not considered satiating enough whereas dinner was too filling. The group suggested including additional food items such as toast, butter, and jelly for breakfast. One way to address these problems without affecting the dietary goals of this menu is by reducing the tamales at dinner from 3 to 1 and substituting them with 1 piece of toast, 1 teaspoon of soft reduced fat margarine, and 1 teaspoon of jelly at breakfast and half cup of refried beans at lunch. This change would increase total energy intake by 20 kcal without affecting the dietary goals for total fat, saturated fat, dietary cholesterol, and sodium.

Another preference of the participants that would also be easy to incorporate was to eat cooked breakfast such as huevos rancheros, pancakes, and scrambled and fried white eggs, which they find very palatable, only during the weekends at breakfast when they would have more time to cook. Their preference for the weekdays was toast, cereal, yogurt, and fruit juice.

The group also suggested preparing enchiladas with white cheese only and not including meat. This type of modification would be appropriate provided the participants use low fat white cheese and that also in moderate quantities. There seemed to be a concern regarding the cost of low-fat cheese. The participants believed that low-fat cheese costs more than high-fat cheese, and is thus not affordable, and that they would use the high-fat cheese but less of it. Another focus group study among low-income Mexican-Americans also reported that one barrier to dietary change was financial limitations (Palmeri et al, 1998). Education regarding unit costs may help change the perception that certain low-fat foods are more expensive. For example, at the current prices, the cost of one ounce of cheddar cheese is similar to that of one ounce of low-fat mozzarella cheese.

Other suggestions that would be easy to incorporate and not change the dietary goals were eating the jicama salad plain or with lemon juice rather than oil dressing, providing coffee in the breakfast menus and diet soda, water, juice, tea, or lemonade in the lunch and dinner menus, not including two types of "breads" in the same menu (e.g., tortilla with burrito), always serving rice and beans together, and using "left-overs" from lunch for dinner.

The authors were surprised and encouraged to find that canola oil for cooking is considered very acceptable in the Mexican-American community especially since Mexican food is normally cooked with lard a rich source of saturated fat. Canola oil is rich in monounsaturated fat, which improves lipid and lipoprotein profile (Garg, 1998).

A suggestion that may enhance the dietary goals includes providing "lots of salad" because the participants enjoy eating salads especially the prickly pear salad. The participants, however, recommended including in the salad, avocado and guacamole, both common ingredients in Mexican cuisine. These foods, although high in monounsaturated fat, have to be limited because of their high fat content, and this needs to be stressed to Mexican-American participants.

Four major suggestions that the participants made that could negatively affect the dietary goals were replacing skim and 1% milk with 2% milk during breakfast, not including milk at lunch, dinner, or snack-time, replacing corn tortillas with flour tortillas, and eating eggs with egg yolks. About 50% of the participants would drink no less than 2% milk at breakfast. The American Heart Association guidelines recommend using skim or 1% milk. Consuming 2% milk will make it more difficult to keep the saturated fat intake under control since just 2-3 cups of 2% milk (2-3 dairy servings) would account for about 5.8-8.7 gm (50-75%) of the 12 gm of saturated fat allowance on an 1800 kcal diet. At the very least, milk fat content should be no more than 1%. One possible reason for this reluctance to switch to 1% or skim milk is because of the misconception among many Mexican-American people that reduced-fat milk is "incomplete milk" containing less calcium and vitamin D than whole-fat milk (Dennison, Rockwell, & Nichols, 2001). It is notable that parents who believed that whole-milk had more nutrients than reduced fat milk, were more likely to serve their children whole-milk (Dennison et

al). Correcting this misconception as well as using more appropriate Spanish terms describing reduced-fat milk (Dow, 2001) may help some Mexican-Americans to switch from 2% to low-fat milk.

In addition to reluctance towards drinking low-fat milk, there was much resistance towards drinking any milk at lunch, dinner, and snack-time. This is a concern since according to the National Health and Nutrition Examination Survey III (Alaimo, McDowell, Briefel, Bischof, Caughman, Loria et al., 1994), the calcium intake of Mexican-American women is only about 50% of the amount recommended. Because of the reluctance to drink enough milk, however, Mexican Americans should be encouraged to meet their calcium requirements from other calcium rich food sources such as fortified cereals and juices, green leafy vegetables, and low fat yogurt, cheese, or buttermilk, or take calcium supplements.

The suggestion by the participants to replace corn tortillas with flour tortillas is not the best option since the latter are bigger in size (2 to 6 inches wider), and even per unit weight, the flour tortillas are about 2 to 6 times higher in fat, saturated fat, and sodium, than corn tortillas. Participants should be made aware of these differences and encouraged to consume corn tortillas rather than flour tortillas. However, if they choose to consume flour tortillas, they should be encouraged to limit consumption or make adjustments in their other food intake to maintain their nutrient goals.

Two participants said that they would not eat eggs without the egg yolks in response to the menu 6 breakfast, of fried white eggs, tortillas, and skim milk. In controlled metabolic studies (Hegsted, McGandy, Myers, & Stare, 1965; Keys & Parlin, 1966), dietary cholesterol has been shown to increase LDL cholesterol. Two large prospective studies (Hu, Stampfer, Rimm, Manson, Ascherio, Colditz, et al., 1999) on the relationship between dietary cholesterol and CVD, however, found that consumption of up to 1 egg per day in unlikely to have substantial overall impact on the risk of coronary heart disease or stroke among healthy men and women. The discrepancy between the metabolic and epidemiologic studies might be due to the fact that dietary cholesterol increases not only LDL cholesterol but also high density lipoprotein cholesterol which would attenuate the negative effect of egg consumption on CVD risk. Based on these data and the fact that eggs are inexpensive and a good source of many nutrients, a moderate consumption of eggs in this population should not be discouraged.

The participants suggested including several other dishes that were not on the menus. Some of the suggested dishes such as pozole, coditos, pasta, and fish would meet the cholesterol lowering guidelines provided low-fat ingredients are used. Others such as tortas and barbacoa, however, would not meet the guidelines because tortas are fried, and barbacoa is organ meat, a very rich source of fat and cholesterol. The participants suggested including some desserts that were high in saturated fat and cholesterol as snack. The American Heart Association produces a brochure (including recipes) on healthy and tasty snacks that might be helpful.

The generally good acceptability of the menus may be partly related to the fact that the majority of the participants (9 out of 11) were born in Mexico. Findings from the Third National Health and Nutrition Examination Survey, 1988-1994, show that Mexican Americans born in Mexico consumed a more heart-healthy diet than Mexican Americans born in the US, irrespective of the language spoken (Dixon, Sundquist, & Winkleby, 2000). Whether, Mexican Americans born in the US would find the menus equally acceptable needs to be examined, however.

How long a person has resided in the US and acculturation (based on the primary language spoken) may have also influenced the evaluation of the menus. A cross-sectional study (Bermudez, Falcon, & Tucker, 2000) on the relationship between length of residence in the US and macronutrient intake reported that Mexican-Americans residing in the US for 20 or more years had a lower energy contribution from complex carbohydrates and a higher energy contribution from simple sugars than the group of Mexican-Americans who were US residents for less than 20 years. Based on the available data, the average time of residence for our participants born in Mexico was only 9.1 years with a range of 3 to 19 years. This relatively short length of residence, thus, may partly explain the generally good acceptability of the menus, which were rich in complex carbohydrates.

A study examining the relationship between acculturation (based on the primary language spoken) and the types of food eaten found that less acculturated (Spanish speaking) Mexican-Americans were more likely to eat fruit, rice, beans, meat, and fried foods, and drink whole milk compared to more acculturated Mexican-Americans (Otero-Sabogal, Sabogal, Perez-Stable, & Hiatt. 1995). All our participants spoke Spanish as their primary language, which might further explain the acceptability of the menus except for skim milk. Mexican Americans should be encouraged to follow the traditional Mexican diet with a few food exceptions such as limitations in the intake of fried food, whole milk, and fatty meat. Those who elect not to follow the traditional Mexican diet should be given information

on how to choose heart healthy foods that take into consideration their food preferences.

In summary, the menus described here were found to be generally culturally appropriate, palatable, easy to prepare, affordable, and the ingredients easily available. The 1800 kcal menus were found to be more attractive. The participants made a number of suggestions. Of these, the major suggestions that are easily addressed without affecting the dietary goals include providing less food in many of the dinner menus but more food in some of the breakfast and lunch menus, serving cooked breakfast during weekends rather than weekdays, serving salad with a lemon juice dressing or no dressing but not oil dressing, not serving two types of "breads" together, providing rice and beans together, and always providing coffee for breakfast and juice, diet soda, water, tea, or lemonade for lunch and dinner. Suggestions such as providing a great deal of salad with avocados and guacamole would be acceptable provided the avocados and guacamole are eaten in moderation. The suggestions that would make it more difficult to achieve the dietary goals and need further attention from health educators, included limiting milk consumption to breakfast only and replacing skim and 1% milk with 2% milk, replacing corn tortillas with flour tortillas, not leaving out the egg yolks in egg dishes, providing certain high saturated fat and high cholesterol desserts and meals, and believing that certain low-fat foods were more costly than their high-fat counterparts.

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Table 1. Mexican-American menu 1[1]
(1400 kcal and 1800 kcal)

Menu 1 (1457 kcal, 22% fat calories, 4% saturated fat calories, 130 mg cholesterol, and 1160 mg sodium)	***Menu 1 (1800 kcal, 20% fat calories, 4% saturated fat calories, 132 mg cholesterol, and 1383 mg sodium)***
Breakfast	Breakfast
2 slices whole wheat toast	2 slices whole wheat toast
2 teaspoons soft margarine	2 teaspoons soft margarine
¾ cup skim milk	1 cup skim milk
½ grapefruit	½ grapefruit
Lunch	Lunch
2 enchiladas made with beef eye of round, fat free cheddar cheese, vegetables, and canola oil	2 enchiladas made with beef eye of round, fat free cheddar cheese, vegetables, and canola oil
½ cup refried beans cooked with canola oil	½ refried beans cooked with canola oil
1 cup coffee with 2 tablespoons skim milk	1 corn tortilla
	2/3 cup jicama salad with vegetable oil dressing
	1 cup coffee with 2 tablespoons skim milk
Dinner	Dinner
2 taco picadillos made with pork tenderloin, vegetables, and canola oil	2 taco picadillos made with pork tenderloin, vegetables, and canola oil
2/3 cup Mexican red rice cooked with canola oil	2/3 cup Mexican red rice cooked with canola oil
2 tablespoons red salsa	1 corn tortilla
¾ cup skim milk	2 tablespoons red salsa
	1 cup skim milk
Snack	Snack
1 medium apple	1 medium apple

[1]All recipes are from the "Skinny Mexican Cooking" by Sue Spitler, Surrey Books, Inc. 1996; canola oil was used instead of cooking spray.

Table 2. Mexican-American menu 2[1]
(1400 kcal and 1800 kcal)

Menu 2 (1440 kcal, 17% fat calories, 3% saturated fat calories, 102 mg cholesterol, and 1655 mg sodium)	***Menu 2 (1798 kcal, 17% fat calories, 3% saturated fat calories, 104 mg cholesterol, and 1930 mg sodium)***
Breakfast	Breakfast
1 cup corn flakes	1 cup corn flakes
¾ cup skim milk	1cup skim milk
1 medium banana	1 medium banana
Lunch	Lunch
1 black bean and beef (eye of round steak) burrito made with fat free cheese, vegetables, and canola oil	1 black bean and beef (eye of round) burrito made with fat free cheese, vegetables, and canola oil
1 corn tortilla	½ cup refried beans cooked with canola oil
¾ cup skim milk	1 corn tortilla
	½ cup cactus salad with vegetable oil dressing
	1 cup skim milk
Dinner	Dinner
3 chicken and poblano tamales made with skinless chicken, vegetables, and canola oil	3 chicken and poblano tamales made with skinless chicken, vegetables, and canola oil
2 tablespoons red salsa	2 tablespoons red salsa
2 tablespoons green salsa	2 tablespoons green salsa
2/3 cup Mexican red rice cooked with canola oil	2/3 cup Mexican red rice cooked with canola oil
1 cup coffee with 2 tablespoons skim milk	1 corn tortilla
	1 cup coffee with 2 tablespoons skim milk
Snack	Snack
1 medium orange	1 medium orange

[1]All recipes are from the "Skinny Mexican Cooking" by Sue Spitler, Surrey Books, Inc. 1996; canola oil was used instead of cooking spray.

Table 3. Mexican-American menu 3[1]
(1400 kcal and 1800 kcal)

Menu 3 (1467 kcal, 16% fat calories, 3% saturated fat calories, 276 mg cholesterol, and 708 mg sodium)	***Menu 3 (1811 kcal, 16% fat calories, 3% saturated fat calories, 276 mg cholesterol, and 782 mg sodium)***
Breakfast	Breakfast
Huevos rancheros made with 1 whole egg	Huevos rancheros made with 1 whole egg
½ cup refried beans cooked with canola oil	½ cup refried beans cooked with canola oil
¾ cup orange juice	¾ cup orange juice
Lunch	Lunch
1 cup black bean soup made with vegetables and canola oil	1 cup black bean soup made with vegetables and canola oil
2 corn tortillas	2 corn tortillas
1 cup skim milk	2/3 cup Mexican red rice made with canola oil
	1 cup skim milk
Dinner	Dinner
2/3 cup beef (eye of round steak) and ancho chilli stew made with vegetables and canola oil	2/3 cup beef (eye of round steak) and ancho chilli stew made with vegetables and canola oil
2/3 cup Mexican red rice made with canola oil	2/3 cup Mexican red rice made with canola oil
½ cup celery	1 corn tortilla
½ cup cantaloupe	2/3 cup jicama salad with vegetable oil dressing
1 cup coffee with 2 tablespoons skim milk	½ cup cantaloupe
	1 cup coffee with 2 tablespoons skim milk
Snack	Snack
1 cup skim milk	1 cup skim milk

[1]All recipes are from the "Skinny Mexican Cooking" by Sue Spitler, Surrey Books, Inc. 1996; canola oil was used instead of cooking spray.

Table 4. Mexican-American menu 4[1]
(1400 kcal and 1800 kcal)

Menu 4 (1474 kcal, 17% fat calories, 3% saturated fat calories, 276 mg cholesterol, and 1798 mg sodium)	***Menu 4 (1824 kcal, 16% fat calories, 3% saturated fat calories, 276 mg cholesterol, and 1960 mg sodium)***
Breakfast	Breakfast
2/3 cup Farina	2/3 cup Farina
½ cup papaya	1 corn tortilla
1 cup skim milk	½ cup papaya
	1 cup skim milk
Lunch	Lunch
Scrambled eggs made with 1 whole and 1 egg white and served with crisp tortilla strips	Scrambled eggs made with 1 whole and 1 egg white and served with crisp tortilla strips
½ cup refried beans cooked with canola oil	½ cup refried beans cooked with canola oil
1 cup coffee with 2 tablespoons skim milk	1 corn tortilla
	1 cup coffee with 2 tablespoons skim milk
Dinner	Dinner
2 fajitas made with skinless chicken breast, vegetables, and canola oil	2 fajitas made with skinless chicken breast, vegetables, and canola oil
2/3 cup orange cilantro rice cooked with canola oil	2/3 cup orange cilantro rice cooked with canola oil
1/2 cup cactus salad with vegetable oil dressing	½ cup refried beans cooked with canola oil
	½ cup cactus salad with vegetable oil dressing
1 cup skim milk	1 cup skim milk
Snack	Snack
½ cup papaya	½ cup papaya

[1]All recipes are from the "Skinny Mexican Cooking" by Sue Spitler, Surrey Books, Inc. 1996; canola oil was used instead of cooking spray.

Table 5. Mexican-American menu 5[1]
(1400 kcal and 1800 kcal)

Menu 5 (1450 kcal, 22% fat calories, 4% saturated fat calories, 156 mg cholesterol, and 1466 mg sodium)	***Menu 5 (1816 kcal, 20% fat calories, 4% saturated fat calories, 159 mg cholesterol, and 1851 mg sodium)***
Breakfast	Breakfast
3 four inch pancakes made with extra light pancake mix and 1 teaspoon canola oil	3 four inch pancakes made with extra light pancake mix and 1 teaspoon canola oil
¼ cup Lite syrup	¼ cup Lite Syrup
½ cup strawberries	½ cup strawberries
¾ cup skim milk	1 cup skim milk
Lunch	Lunch
1.5 rellenos made with skinless chicken breast, fat free cheese, vegetables, and canola oil, and served with chili tomato sauce	1.5 rellenos made with skinless chicken breast, fat free cheese, vegetables, and canola oil, and served with chili tomato sauce
½ cup refried beans cooked with canola oil	½ cup refried beans cooked with canola oil
1 cup coffee with 2 tablespoons skim milk	1 corn tortilla
	1 cup coffee with 2 tablespoons skim milk
Dinner	Dinner
1 serving mole made with skinless chicken breast and canola oil, and served with mole sauce	1 serving mole made with skinless chicken breast and canola oil, and served with mole sauce
1 corn tortilla	2 corn tortillas
2/3 cup Mexican red rice	2/3 cup Mexican red rice
½ cup skim milk	½ cup cactus salad with vegetable oil dressing
	1 cup skim milk
Snack	Snack
2 passion fruits	2 passion fruits

[1]All recipes are from the "Skinny Mexican Cooking" by Sue Spitler, Surrey Books, Inc. 1996; canola oil was used instead of cooking spray.

Table 6. Mexican-American menu 6[1]
(1400 kcal and 1800 kcal)

Menu 6 (1481 kcal, 19% fat calories, 4% saturated fat calories, 88 mg cholesterol, and 1234 mg sodium)	***Menu 6 (1773 kcal, 19% fat calories, 3% saturated fat calories, 88 mg cholesterol, and 1277 mg sodium)***
Breakfast	Breakfast
3 egg whites fried in 1 teaspoon canola oil	3 egg whites fried in 1 teaspoon canola oil
2 corn tortillas	2 corn tortillas
1 cup skim milk	½ cup refried beans cooked with canola oil
	1 cup skim milk
Lunch	Lunch
1.5 cups soup made with corn tortillas, skinless chicken breast, vegetables, and canola oil	1.5 cups soup made with corn tortillas, skinless chicken breast, vegetables, and canola oil
2/3 cup Mexican red rice cooked with canola oil	2/3 cup Mexican red rice cooked with canola oil
½ cup mango	½ cup mango
1 cup coffee with 2 tablespoons skim milk	1 cup coffee with 2 tablespoons skim milk
Dinner	Dinner
1 serving lean beef steak and tomatillo and avocado sauce made with canola oil	1 serving lean beef steak and tomatillo and avocado sauce cooked with canola oil
½ cup refried beans cooked with canola oil	2/3 cup Mexican red rice cooked with canola oil
½ cup cactus salad with vegetable oil dressing	½ cup refried beans cooked with canola oil
	½ cup cactus salad with vegetable oil dressing
1 cup skim milk	1 cup skim milk
Snack	Snack
½ cup pineapple	½ cup pineapple

[1]All recipes are from the "Skinny Mexican Cooking" by Sue Spitler, Surrey Books, Inc. 1996; canola oil was used instead of cooking spray.