Cultural and Dietary Factors Influencing Traditional Latino Meal Patterns: Findings from Focus Group Discussion

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Abstract

Background: Despite a high prevalence of nutrition-related health disparities experienced by Latinos in the United States, there is limited recent information that can be used by health professionals to develop effective nutrition interventions for this diverse population. Purpose: The purpose of this study was to obtain qualitative information regarding usual dietary patterns of Latinos from Pomona, California, and utilize this data in the development of a tailored nutrition intervention. Methods: Latina women ages 30-70, from a low socio-economic community sample, participated in one of three focus groups, and discussed eating patterns, recipes, and dietary concerns. Participants self-identified as the primary household food purchaser and preparer. Demographics and acculturation were assessed using validated surveys. Results: All participants (n=17) were considered less acculturated to the United States. Participants reported that traditional recipes and family preferences have the greatest influence on foods prepared, however they tend to be less healthy items. Motivators for eating healthy included maintaining family health and preventing weight gain. Barriers included conflicting meal schedules among family members and individual food preferences. Conclusion: To reduce health disparities for Latinos, cultural and dietary factors of communities, along with perceived motivators and barriers to making healthy choices, should be considered when developing tailored nutrition interventions.

Introduction

The health and dietary habits of Latinos are of growing importance to health professionals, as the Latino population is the largest minority group in the United States (US). In 2012, the US Census Bureau reported that over 53 million individuals self-identified as ‘Latino’ or ‘Hispanic’, constituting 16.9% of the total population. This classification includes any person of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish origin, regardless of race (Humes, Jones, & Ramirez, 2011). These demographic patterns are greatly pronounced in California as 38.2% of the population is Latino, a close second to non-Latino whites at 39.4% (US Census Bureau, 2014). According to population trends, the proportion of Latinos in the US will double by the year 2060, and will represent over 30% of the total population (US Census Bureau, 2012). With this in mind, particular regard for Latinos is necessary to ensure the health of the American population.

Among Latinos, the rise in nutrition-related chronic diseases as compared with non-Latino whites indicates an unequal burden of health (Centers for Disease Prevention and Control [CDC], 2012). The rates of overweight and obesity, high cholesterol, stroke, and type II diabetes among Latino Americans are significantly higher than in non-Latino whites, in both children and adults (Flegal, Carroll, Ogden, & Curtin, 2010; Lutfiyya, Garcia, Dankwa, Young, & Lipsky, 2008; CDC, 2014; Powell, Wada, Krauss, & Wang, 2012). Minority and disadvantaged populations experience many changes in behavior shown to affect receiving proper nutrition, including reduced family meals, less access to healthy foods, lack of nutrition or cooking knowledge, and socioeconomic factors (Fruh et al., 2013). There is a need to further understand dietary patterns...
and the factors that influence food choices in populations with health disparities.

An important consideration when assessing diet quality and disease risk among Latinos is the maintenance of traditional practices, as culture plays a significant role in diet patterns. Lindberg and colleagues (2013) state, “Selection of ingredients, how foods are prepared, the timing and context of meals, size of portions, notions of healthful versus unhealthy foods, and what is considered a ‘meal’ and what is considered a ‘snack,’ are all integral parts of cultural meal patterns” (p. 1). Understanding dietary habits in the Latino community can be a challenge because Latino Americans exhibit a unique transitioning phenomenon regarding the acculturation process in their diet (Bermudez, Falcon, & Tucker, 2000; Lin, Bermudez, & Tucker, 2003; Yeh, Viladrich, Bruning, & Roy, 2009). “Dietary acculturation” refers to the dynamic process of the incorporation and assimilation of the majority culture into the minority culture as it relates to dietary patterns and food choices (Satia, 2010). Research indicates that the process of dietary acculturation is multi-dimensional, where the consumption of new items is often independent of traditional food habits. Immigrants may find new ways to use traditional foods, exclude other foods, and/or consume new foods (Satia-Abouta, Patterson, Neuhouser, & Elder, 2002). Culturally based food habits are often among the last practices people change through acculturation (Kittler, Sucher, & Nahikian-Nelms, 2012). Given the heterogeneity of Latino cultures within this population, including factors such as different racial and socioeconomic backgrounds or country of origin and residence, Latino subgroups also differ in rate of acculturation to the US diet (Colón-Ramos et al., 2009). Understanding of the influence of acculturation on food and meal patterns provides useful insight into the development of personally relevant and culturally appropriate nutrition interventions for Latino communities.

The California State University Agricultural Research Institute funded a research initiative to develop a tailored nutrition intervention for Latino residents of Pomona, California through community based participatory research (CBPR), integrating education and social action to improve health and reduce disparities. Researchers and students in the Food and Nutrition program at California State Polytechnic University, Pomona worked directly with community members through focus groups and sensory evaluations of modified recipes to create cooking classes incorporating traditional foods made with healthy ingredients and cooking techniques. Existing research demonstrates positive effects of cooking classes provided to a target population on food preparation skills and diet quality (Lang, Caraher, Dixon, & Carr-Hill, 1999; West et al., 1999; Wrieden et al., 2007). As in other CBPR studies, the integration of community feedback throughout the developmental process provided important perspectives and ideas while incorporating cultural practices and concerns during all stages of the intervention (Balcázar et al., 2010; Wallerstein & Duran, 2006; Wieland et al., 2012). By utilizing methods such as focus groups, the CBPR model of research serves as a valuable tool for designing and implementing projects within the Latino community.

The use of focus group data to inform the design and strategies of community-based nutrition interventions is shown to provide valuable information that can be tailored for greater effect on the individuals in a group. For example, Diaz and colleagues (2007) conducted a qualitative study of overweight Latino adults with a pre-existing chronic health condition such as cardiovascular disease, high cholesterol, and diabetes. Themes of the discussion pertaining to program development promoted the preservation of healthy traditional habits, the desire for culturally appropriate nutrition education, and the use of peers and groups in the education. In another study, the results of a focus group of Scottish urban communities resulted in the development of a program manual that enabled facilitators to follow a standardized but flexible program in each community (Wrieden et al., 2007). Strolla and colleagues (2006) conducted focus groups with low-income Latinos and non-Latinos, revealing numerous behavioral barriers for reducing fat intake and increasing fruit and vegetable intake, as well as motivators for
healthy eating. Findings were used to determine tailored survey questions and intervention messages for their project to develop a nutrition education intervention that met the needs of the study population.

The purpose of this study was to obtain qualitative data on the daily eating patterns, traditional recipes and dietary concerns of low-income southern California Latinos. Ultimately, the larger project will incorporate focus group findings into the creation of a customized nutrition intervention that meets the needs of the study participants. A better understanding of food practices and specific motivators or barriers to making dietary changes among Latinos may be helpful in developing needed tailored nutrition interventions intended to reduce nutrition-related health disparities.

Methods

Study Design

Qualitative methods of investigation allow for an in-depth look into a phenomenon with the perspective of the subject’s own opinions and experiences, which can support ethnic populations and cultural issue research (Sadler et al., 2010). Focus group methodology was utilized to yield data regarding concerns, usual dietary patterns, and recipes used by Latinas and conducted based on the standard methods outlined by Krueger and Casey (2009).

The focus group used a culturally competent approach. Undergraduate Spanish-speaking Estudiante de Dietético (ED) students from the university’s dietetics program interacted with community Latina participants. These students have training in a US Department of Agriculture (USDA) funded curriculum that increases their cultural proficiency and Spanish language skills. Under the supervision of the primary investigators, the ED students assisted with recruitment, facilitated focus groups, and provided translation services throughout the study. Facilitators received the same training and used the same script to explain the focus group procedures and questions to participants.

Sample

Data were collected from adult Latina women, limited to females due to their assumed influence regarding family meal patterns (Baquero et al., 2009; Diaz, Marshak, Montgomery, Rea, & Backman, 2009; Elder et al., 2005). Women were recruited from the low-income communities served by the Philadelphia Community Center and the Garfield Neighborhood Center, located in Pomona, CA. Both sites expressed support of, and desire for this intervention. Pomona health statistics from 2011 report that 26.1% of adult residents were obese, 7.8% were diagnosed with diabetes, 27.9% were diagnosed with hypertension, and 23.0% were diagnosed with high cholesterol (Los Angeles County Department of Public Health, 2013). In 2010, 70.5% of the total population in Pomona was of Hispanic/Latino origin, and 2008 to 2012 data showed that 64.8% of residents spoke a language other than English at home (US Census Bureau, 2014).

Participants were recruited through flyers and promotion by the Site Coordinator at each location. Latina women who met study criteria and agreed to be audio taped were selected to participate. Participants were self-reported Hispanic/Latino origin, Spanish speaking, and 30-70 years old. As an appreciation for their time, focus group participants received a bag of culturally appropriate, fresh, local-grown produce valued at $10 each.

Measures

In preparation for the study, the principal investigator and two co-principal investigators (all Registered Dietitians), outlined procedures and key concepts for the focus group interviews. Open-ended questions were used to determine participants’ daily eating patterns and traditional recipes. The final focus group framework contained a core of nine broad questions with subsequent probing questions that encouraged women to elaborate on their responses (Table 1). The California State Polytechnic University Institutional Review Board approved the study and informed consent forms (available in Spanish and English).
Table 1
Focus Group Questions Aiming to Understand Dietary Patterns of Latinas

<table>
<thead>
<tr>
<th>Question</th>
<th>Response</th>
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<tbody>
<tr>
<td><strong>Who plans and prepares the meals at home?</strong></td>
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<tr>
<td>- Are you able to cook?</td>
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<tr>
<td>- Do you like to cook? Rate yourself on a scale of 1 to 5 (1 = strongly agree, 5 = strongly disagree)</td>
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<tr>
<td><strong>Who does the grocery shopping in your household?</strong></td>
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<tr>
<td>- Where and how often do you shop for food? (The same or different places?)</td>
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<tr>
<td><strong>What, if anything, do you do to plan for meals a head of time?</strong></td>
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<tr>
<td>- When do you decide what foods to buy and make?</td>
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<tr>
<td>- What do you consider when choosing foods?</td>
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<tr>
<td>- Who, if anyone, affects your decisions on what foods to buy or meals to make? (Children, spouses, significant others, etc.)</td>
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<tr>
<td><strong>Tell me about your family’s eating patterns. What time of day does your family usually eat each meal and what types of food do they eat at that time?</strong></td>
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<td>- What does a “meal” usually consist of?</td>
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<td>- Are there meals where everyone eats at the same time? If not, why?</td>
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<tr>
<td><strong>What role if any does your cultural background/ethnicity play in your food choices/dietary preferences?</strong></td>
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<tr>
<td>- Do you eat traditional foods from your culture? If yes, what types of foods do you consume on a regular basis? (Staples of the diet)</td>
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<tr>
<td>- How often do you consume them?</td>
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<tr>
<td>- What are your traditional family recipes?</td>
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<tr>
<td><strong>What are your family’s favorite meals?</strong></td>
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<tr>
<td>- How often do you prepare these meals?</td>
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<tr>
<td>- When do you make these special meals?</td>
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<tr>
<td><strong>What meals or recipes are prepared most often in your home?</strong></td>
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<tr>
<td>- Why are these meals prepared more often?</td>
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<tr>
<td>- What are your feelings about cooking for your family?</td>
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<tr>
<td>- Is meal preparation limited by time?</td>
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<tr>
<td>- Do you get help from family members when preparing family meals?</td>
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<tr>
<td>- Does the amount of cleanup effect your meal choices?</td>
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<tr>
<td><strong>How often do you eat out?</strong></td>
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<tr>
<td>- What do you have?</td>
<td></td>
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<tr>
<td>- Does your family enjoy eating out?</td>
<td></td>
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<tr>
<td>- What, if anything, affects your decision of whether or not to eat out?</td>
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<tr>
<td><strong>Think about if you have ever tried to change the way you or your family eats. If you have, describe what you tried to change.</strong></td>
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<tr>
<td>- What made you want to change?</td>
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<tr>
<td>- How did you try to make this change?</td>
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<tr>
<td>- If it worked, what did you do to make it work?</td>
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<tr>
<td>- If it did not work, what would have helped you or your family to change?</td>
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</tr>
<tr>
<td>- Is there anything about the foods you buy or the way you cook that you’d like to change?</td>
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Data Collection

Three focus groups were conducted in Spanish over a six-week period. After these three groups were held and transcripts revealed repetition of themes with no new codes or categories emerging, saturation of ideas was reached and no additional focus groups were held. Responses to questions were audio-recorded. Each session lasted 45 minutes, providing ample opportunity for participants to establish a meaningful connection and allowing sufficient coverage of each discussion topic. During the focus groups, participants were given a sign with a number and were asked to respond to questions and be referred to by their number to maintain confidentiality.

Audio-recorded data from each session was transcribed into Spanish and then translated into English. The two Spanish-speaking student facilitators independently translated and then met to agree on translation. Additional data was collected from the women prior to beginning the focus groups using a basic demographic questionnaire and a nine-item Short Acculturation Scale for Hispanics (SASH), which has been used in various nutrition intervention studies to assess the level of acculturation of the subject and/or population (Marin, Sabogal, VanOss, Otero-Sabogal, & Perez-Stable, 1987). For example, Mainous, Diaz, and Geesey (2008) examined the association of acculturation on healthy lifestyle habits among diabetic Latino-Americans. Using NHANES III data, researchers identified Latino adults with diagnosed type 2 diabetes and compared their reported dietary intake to American Diabetes Association healthy lifestyle recommendations. Using a five-item modified SASH scale, researchers concluded that 36 to 69% of Latino individuals with diabetes nationally were more acculturated, and less acculturated individuals appeared to have significantly less saturated fat intake and more fiber intake.

Data Analysis

To analyze qualitative data, team members reviewed transcribed data and identified themes using the constant comparative method of analysis (Glaser & Strauss, 1967). The SASH questionnaire assesses language and media preference, utilizing a 5-point Likert scale with scores ranging from only Spanish (1) to only English (5). To evaluate responses, scores were summed across the nine items and divided by the number of items answered to achieve an overall average score that indicates a lesser (< 2.99) or greater (> 2.99) degree of acculturation.

Results

Seventeen Latinas participated in three focus groups, one meeting with eleven women and two meetings with 3 women each. Most of the participants were born in Mexico (n=15), had lived in the US for ten years or more (n=16), spoke only Spanish at home (n=11), and were mothers (n=12). The mean age of participants was 47±9.7 years and the mean number of people living in the household was 4.8±2.2. For the SASH scale, all women (n=17) scored a 2.99 or below, with most scoring between 1 and 1.99 (n=15), indicating all participants could be classified as less acculturated to the American culture. The study group was homogenous in terms of language. Although there were participants who spoke, read, listened to music and watched television in English, the majority of the group thought only in Spanish (76.5%) and exclusively spoke Spanish with their friends (82.4%).

Words, opinions and descriptions of their food purchasing and preparation habits, cultural foods, and dietary patterns provided the basis for analysis of their motivators and barriers to making dietary changes. Five main themes were developed from the focus group data, including ‘Cultural Dietary Patterns’, ‘Preparing Family Meals’, ‘Family Preference’, ‘Time Management’, and ‘Health Management’. These themes are consistent with identification of dietary trends; reports showed patterns and behaviors have an underlying cultural influence in almost all diet-related decisions, especially concerning concepts of tradition and family.
Table 2
Cultural Foods Prepared by Latina Focus Group Participants

<table>
<thead>
<tr>
<th>Daily/Weekly</th>
<th>Monthly</th>
<th>Special Occasions</th>
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<tbody>
<tr>
<td>Rice</td>
<td>Cactus salad</td>
<td>Tamales</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(seasoned meat packed in cornmeal dough, wrapped in leaf/corn husk, and steamed)</td>
</tr>
<tr>
<td>Beans</td>
<td>Taquitos (deep-fried rolled taco)</td>
<td>Flan (sweet custard-type dessert with caramel topping)</td>
</tr>
<tr>
<td>Meat (red)</td>
<td>Tortas (Mexican sandwich)</td>
<td>Birria (goat stew)</td>
</tr>
<tr>
<td>Enchiladas</td>
<td>Tostadas (flat, deep-fried tortilla with meat and/or vegetable toppings)</td>
<td>Pupusas (thick corn tortilla filled with meat, cheese, and/or vegetables)</td>
</tr>
<tr>
<td>Noodle or vegetable soup</td>
<td>Fried tacos</td>
<td>Goat meat</td>
</tr>
<tr>
<td>Chorizo (pork sausage)</td>
<td>Beef soup</td>
<td>Dulce de leche (sweetened, caramelized milk)</td>
</tr>
<tr>
<td>Mole (sauce)</td>
<td>Albondigas (meatball soup)</td>
<td>Menudo (tripe soup)</td>
</tr>
<tr>
<td>Seafood</td>
<td>Pollo al horno (oven-baked chicken)</td>
<td>Pollo relleno (stuffed, roasted chicken)</td>
</tr>
<tr>
<td>Grilled chicken</td>
<td>Horchata (rice milk beverage)</td>
<td>Carrot cake</td>
</tr>
<tr>
<td>Stuffed chilies</td>
<td>Jamaica (hibiscus punch)</td>
<td>Pozole (hominy soup)</td>
</tr>
</tbody>
</table>

Note. Food items organized by how frequently they are prepared at home.

Cultural Dietary Patterns
Participants provided details about food prepared at home and the impact of cultural influences on their meal patterns. Grocery shopping was done mostly at chain stores that offer lower prices and a wider selection of Latino food items. When asked about the role of culture in decision-making when food shopping, women (n=7) said they buy fresh foods from their home country, including vegetables like corn, beans, and squash, as well as meat. One participant shared, “Well I think [culture] affects us because when we are in our own country everything is fresh, and you get here and everything is frozen.” When asked to discuss cultural foods and traditional recipes prepared for their family, many reported cooking traditional foods on a daily basis (n=9). Examples of foods included rice, beans, carne (red meat) or chicken, enchiladas, and various soups. Specialty dishes and family favorite meals were prepared less frequently, ranging from every weekend to every month. Table 2 provides a list of cultural foods mentioned in the focus groups. The traditional cooking method of frying was still used in the women’s regular cooking practices, especially in food cooked for family members, although a few women (n=3) mentioned trying to use less oil. Non-cultural foods were not typically prepared at home for meals; “It is very rare for me to cook food other than Mexican, such as lasagna.” However,
American breakfast items such as oatmeal and cereal were repeatedly brought up as foods eaten at home \((n=9)\). All women said they occasionally ate out at restaurants as a family, but frequency varied from once a month to three times a week. The nutritional value of food and the family’s ability to pay for fast food are stated to be important factors affecting whether or not to eat out.

**Preparing Family Meals**

Participants discussed their roles in food preparation and their feelings about making family meals, identifying themselves as the main food purchaser and cook in their homes. They \((n=6)\) reported usually asking their children and husbands for suggestions of foods they want to eat before grocery shopping. About half of the participants \((n=9)\) reported getting occasional help in the kitchen from family members. One woman indicated how cooking skills are encouraged among children, “I like to motivate my daughter to cook, that way she learns.” Most participants \((n=15)\) said they enjoy cooking. Conversely, they \((n=6)\) expressed a variety of feelings towards preparing foods for the family, saying they either liked to cook for their family, or felt conflicted between their enjoyment of cooking and the types of foods they were making. For example, “I also like to cook, but I know that it isn’t healthy food.” Therefore, the women recognize not all of their family meals are nutritious.

**Family Preference**

Much of the focus group discussions were centered on family involvement in food choices. Although these participants reported controlling the food situation in their homes, family member needs and preferences were stated as main considerations for the foods ultimately prepared and served. Their husbands were described as having influence on which foods are purchased, as they are asked for their opinions and cravings for the grocery list, or will go with their wives to the market to help choose groceries and meat \((n=4)\). However, it was described that the children have the greatest influence over food preparation. It was reported \((n=6)\) that Latinas make separate meals for their children, for example, “I cook for a vegetarian son” and, “They don’t like what the adults are eating.” This implies that food items are chosen to appease preferences, not necessarily for its healthfulness. One woman expressed her conflicted feelings and said, “Sometimes I feel bad because I use a lot of tortillas with oil, to fry them, and I cook a lot of meat. I know it’s bad, but I feel good because they like my food and finish it, though I know in the long run they will suffer the consequences of illness.”

**Time Management**

Participants shared how family time management and meal planning played a role in food behaviors. All \((n=17)\) reported that time and planning considerations are made for each meal. About half of the women \((n=8)\) said they make shopping lists in advance, and some said they choose items at the store. Meals were described as being made from fresh ingredients more often than from already prepared items \((n=7)\). Daily meals were reportedly planned with consideration for preparation and cleanup in the total cooking time. When it came to the time of day meals were served during the week, each family member had a different schedule and foods were served around individual needs. Breakfast was eaten in the morning before children leave for school \((n=10)\), with many eating around 7 AM \((n=6)\). A few women \((n=3)\) said they ate both early with their husbands and then again with kids before they left for school. Some \((n=6)\) described lunch as a small meal eaten at home alone while husbands and children were at work and school, and two mentioned working outside of the home during the day. Dinner was described as being served soon after their husband returns home from work \((n=3)\) and/or when the children return from school \((n=7)\). Many women said that families try to have meals together on weekends when everyone is home \((n=10)\), and children help with food preparation more on weekends than when they are in school \((n=3)\). Almost all participants \((n=10)\) expressed that a major factor preventing their families from eating together more frequently is conflicting schedules.

**Health Management**

Participants described how meal planning is influenced by the health of their food and
family. When asked what role culture plays in choosing and buying food, most women agreed that they still largely eat traditional Latino foods; however they try to make recipes healthier. Participants \((n=9)\) said they consider freshness of food and general healthiness when choosing groceries. Participants mentioned making some healthy changes to traditional cooking methods, which included cooking with less lard and frozen foods, and serving more produce. Produce was reported to be offered regularly, although the family is not forced to eat it. Some women said that diet modifications were made specifically for family members with health or weight problems \((n=3)\). One participant commented, “Our family depends on us. If they are overweight or get sick, we need to be more careful with what we cook or do.” There is a strong sense of responsibility to make considerations for the health of family members.

**Discussion**

The degree of dietary acculturation and influence of traditional cultural practices play significant roles in the type of nutrition information relevant to Latino groups and their receptiveness to that information. This pilot study attempts to examine the influences on food choices and meal patterns of traditional Latino families in southern California. In the case of the Latina women enrolled in this study, family health maintenance, enjoyment of cooking, and retention of cultural foods that family members enjoy appeared to be motivating factors for making healthy food choices. Factors negatively affecting eating healthy included conflicting meal schedules, reduced family mealtimes, and the continued use of less healthy traditional recipes. Data collected from focus groups in the current study has multiple implications for researchers when adapting nutrition information to less-acculturated Latino populations.

**Motivators for Eating Healthy**

Focus group Latina participants stated that they enjoy cooking and caring for their families. Keeping family members healthy and preventing the onset of obesity were the major motivating factors for preparing healthier food items. This idea complies with traditional Latina gender roles, which have been described to include cooking, cleaning, and caring for the children (Galanti, 2003). Participants report that they, as female heads of household, are responsible for planning, cooking, and serving meals, which has been observed in studies with similar populations (Cortés, Millán-Ferro, Schneider, Vega, & Caballero, 2013; Lam, McHale, & Updegraff, 2012). Additionally, these women are responsible for making sure grocery shopping gets done and can ultimately choose what food items to buy (Cortés, Millán-Ferro, Schneider, Vega, & Caballero, 2013; Evans et al., 2011). Our research showed a preference for preparing traditional dishes for the family, with an emphasis on fresh ingredients, which includes meats, fruits, and vegetables. The results are consistent with other findings that less-acculturated Latinos eat more beans, rice, fruits, vegetables, whole milk, and fried foods compared to Latinos more acculturated to the American culture (Ayala, Baquero, & Klinger, 2008; Dave, Evans, Saunders, Watkins, & Pfeiffer, 2009; Evans et al., 2011).

**Barriers for Eating Healthy**

Participants shared that a major barrier to serving healthier meals was finding times when the family could eat together. This problem reinforces other investigations of minority communities, as conflicting schedules of parents and adolescents is a frequent reason for not eating together (Fruh et al., 2013). Participants stated that family members are encouraged to help in the cooking process, but they are not regularly involved. Similar research has shown that the cultural tradition of cooking among female adolescents has decreased (Bowen & Devine, 2011). Participants report family food preferences are very influential in meal planning, and similar studies confirm this (Evans et al., 2011; Hampl & Sass, 2001). Accounts of children disliking certain foods, that cause Latinas to make foods that may not be as healthy, are documented in other Latino home studies (Hampl & Sass, 2001; Lindsay et al., 2012). Researchers speculate this is due to the unwillingness to waste money on uneaten foods, and the reluctance to deny a child food (Lindsay et al., 2012). Although the women desire to make positive dietary changes, accommodating...
individual needs increases the difficulty to make regular healthy choices.

**Strategies to Increase Healthy Eating**

The influence of acculturation on the diet and meal patterns of Latinos has been previously investigated however there exists an understanding gap in converting specific preferences and practices into tools that facilitate positive dietary change. Findings from this study may help health practitioners provide improved nutrition interventions that meet the needs of less-acculturated Latino families.

The use of traditional Latino cuisine in nutrition education is supported by the literature and emphasizes fruits, vegetables, legumes, corn, tortillas, rice and beans, substitution of higher fat products with lower fat alternatives (such as cheese and milk recipes), and lower intakes of dessert, which provide a healthful eating pattern (Dixon, Sundquist, & Winkleby, 2000; Yeh, Viladrich, Bruning, & Roy, 2009). Culturally tailored nutrition interventions that meet the level of acculturation of their target audience and incorporate healthy recipes and cooking techniques can improve dietary habits related to disease risk (Evans et al., 2011). Providing specific information about how to prepare modified traditional foods with greater nutritional value or introduce new healthy foods along with accepted cultural foods to family members would be important aspects of nutrition education for Latinos.

In the less-acculturated group, it was demonstrated that Latinas control the grocery shopping and food preparation with family input, indicating that their role as female heads of household is important when designing a nutrition intervention that reaches the entire family. In a study with Latino high school students, teens indicated that mothers were influential on healthful eating for both genders (Diaz, Marshak, Montgomery, Rea, & Backman, 2009). Research has shown that Latina mothers can play an active role in supporting healthy eating in children and influencing food preferences through positive role modeling (Evans et al., 2011; White et al., 2011). Educating children early regarding healthy eating is crucial, especially since children do have an influence in food decisions, and therefore, nutrition interventions tailored towards Latina mothers and children may be a valuable approach. However, incorporation of educational elements encouraging involvement of the whole family in cooking and meal preparation should be considered. Food preparation as a family can be promoted as a rewarding family activity (Rovner et al., 2010). Future research should be conducted to explore and lessen the stress on females to take control of family diet and respond to family pressure.

Nutrition interventions targeting Latino families should include approaches to facilitate family meals. Frequent family meals have a positive relationship with adolescent health and contribute to the formation of healthful eating habits (Burgess-Champux, Larson, Neumark-Sztainer, Hannan, & Story, 2009). For example, Videon and Manning (2003) found that children who ate dinner with their parents were more likely to have breakfast the next morning and make healthier choices throughout the day. Given the strong positive associations of family meals with more healthful eating patterns, nutrition interventions for the Latino community would benefit from encouraging more family meals and educating families how to maximize their time together. It is important for practitioners to recognize Latina’s struggles and conflict of ideas – like time constraints, health risk reduction, and cultural maintenance – and encourage practices that bring tradition to the present.

**Limitations**

Feedback given by participants in focus groups may have been influenced by the environment in which the meeting was held, participants’ understanding and comfort levels with the types of questions asked, as well as the responses from other participants. Information regarding acculturation, demographics, food behaviors, dietary patterns, and cooking skills is self-reported and cannot be independently verified.

**Implications**

Eating patterns, dietary concerns, and traditional recipes of Latinos are important factors to
consider when creating effective nutrition interventions targeting this community. Less-acculturated Latina women in this study revealed motivating reasons to adopt healthier eating practices with their families, such as caring for the health of family members and making nutritious traditional foods. Participants also revealed barriers to improving dietary patterns, including family preference for less healthy cultural foods and limited opportunities to eat meals together. Findings from focus groups were implemented throughout our nutrition intervention. Each cooking class focused on nutrients related to health disparities, such as sugar or sodium, and accounted for acculturation level by encouraging the use of the healthful traditional food customs while incorporating new healthy eating practices and ingredients from American culture. Considering the various factors influencing diet patterns such as family preferences, time constraints, and food options, classes were tailored to focus on ways to improve family acceptance of healthier dishes and enhance family meal times. Our classes focused on women/mothers, as they are a viable method for delivering nutrition information to their families, but we discussed ways to encourage family involvement in meals to increase the retention of positive health behaviors while alleviating the pressure on females to control the family diet. Future research should continue to assess influences on Latino dietary patterns and utilize this information to improve nutrition recommendations for the Latino community.

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