

Dietary Adaptation among Latino Immigrants: Impressions from Mothers of Adolescents

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Abstract

Latino immigrants to the United States experience health deterioration post-immigration. This qualitative study aimed to understand how new environments impact Latino immigrant families' dietary behaviors and to discuss language use in nutrition education materials. Ten Latino mothers of adolescents were interviewed and qualitative analysis revealed three themes: 1) lifestyle and attitude changes, 2) adapting dietary choices, and 3) preservation of native foods and culture. Participants described post-immigration lifestyles with decreased levels of physical activity, exposure to new foods, and challenges to maintain their native foods and culture. Children played a role in dietary transitioning and mothers strive to teach children to maintain their Spanish language. Mothers discussed native health and weight-related beliefs and described having less exposure to nutrition education in their native countries. Participants preferred receiving educational materials in both English and Spanish. Future research should explore ways to support Latino immigrant families in maintaining healthy food traditions.

Keywords

Acculturation, diet, Hispanic/Latino, immigrants, nutrition education, language

Introduction

Based on the 2010 United States census data, Latinos account for more than half of the population growth in the past ten years (Frey 2011). Approximately one in six adults and one in

four children (<18 y.) self-identify as Hispanic/Latino. Because of the numerous countries of origin, Latinos are not a homogenous group but a very culturally diverse group, with 40 percent born outside of the United States and 78 percent speaking Spanish in their homes (Pérez-Escamilla 2009). Most Latino immigrants to the United States come from Mexico (64.9 percent), followed by Puerto Rico (9.2 percent) and other countries (Motel and Patten 2012).

Compared to non-Hispanic whites in the United States, Latinos are more likely to be overweight or obese, less physically active and to develop diabetes and end-stage renal disease (Ricardo et al. 2011). Overweight and obesity are risk negative health outcomes for adults (Kimokoti and Millen 2011), and foreign-born Mexican-American adolescents had the greatest risk of weight gain with acculturation to the United States (Larsen et al. 2003). This suggests that when Latinos immigrate to the United States, the increased risk for developing chronic disease occurs with health-related consequences of lifestyle changes. Therefore, understanding more about the process of dietary acculturation for this population is valuable.

Acculturation occurs when two or more cultures interact and result in changes in individuals' behaviors, values, and senses of identity (Ryder, Alden, and Paulhus 2000). Acculturation continues to emerge as a prominent factor influencing food and beverage choices among Latinos, especially considering that food may be among the last changes made in the acculturation process (Vanegas 2007; Kittler and Sucher 2008). Acculturation among adolescents is particularly impactful as they are also experiencing social development (Larsen et al. 2003).

Dietary acculturation occurs when members of a minority group adopt the eating patterns/food choices of the host country (Satia et al 2001). It is a complex, multi-directional process, and variations include retaining and finding new ways to use traditional foods, excluding some traditional foods and/or adopting new foods. Demographics, education and income level, as well as exposure and access to host culture and cultural norms (health beliefs) can all be variables (Satia 2010; Gray et al. 2005). Age, income, education level, and residency are the major confounders in studies exploring the impact of acculturation on diet. Among Hispanics, studies have shown both negative (Lara et al. 2005; Davis et al. 2013) and positive consequences (Lin et al. 2003; Gray 2005) upon diet intake with acculturation to the United States.

Concerns about health disparity and deterioration of diet upon acculturation suggest the need to consider nutrition and health education and the materials used to communicate with Latino populations. Native language tends to be preferred and maintained among most Latinos (Perez-Escamilla 2009), even with longevity of U.S. residency. The diverse Latino populations in the United States represent several countries and many variations of the written and spoken Spanish language. One study found language barriers to be an important element of health disparity among Hispanic populations (Harvey and O'Brien 2011). Written health information has been found to vary in accuracy and readability for this population. Latinos coming from countries or

areas of high poverty and food insecurity have less exposure to being taught about managing weight (Satia 2010). Understanding of the best ways to communicate health messages to Latino populations is needed.

Parents and caregivers are responsible for providing food and are family gatekeepers of food availability (Kaplan, Kiernan, and James 2006). Children depend on their parents for adequate nutrition and for learning important health values. Therefore, these vulnerable families should be targeted with educational materials that respect their cultural values for health and have accurate linguistic translation. The purpose of this study was to understand how a new environment impacts Latino immigrant families' dietary behaviors and to discuss language use in nutrition education materials.

Methods

A qualitative semi-structured interview research investigation was conducted using subjects that were recruited after participating in a previous focus group study of the researchers. After expressing interest in being interviewed, a sub-sample was recruited to participate in semi-structured interviews exploring their perceptions about dietary behaviors following immigration and preferred language choice for nutrition education materials

The criteria for acceptance into the study included being a parent of a 10- to 13-year-old and the primary food preparer in the home, at least one year of U.S. residency, and self-identifying as being a first-generation Hispanic or Latino immigrant. The small sample size is reflective of purposive sampling, which is a common method of recruiting participants based on specific criteria (Mack et al. 2005).

Recruitment occurred through announcements in newsletters, flyers, and word of mouth in public libraries, Hispanic/Latino restaurants and markets, community centers, and churches. Each participant received compensation with a grocery store gift card. Compensation funds came from the Agricultural Experiment Station and the USDA Cooperative Extension Service. The university's Institutional Review Board approved the protocol and methods.

One researcher who was of Latina descent recruited and interviewed all subjects and encouraged honest, comfortable, and open communication with them. Semi-structured interviews allowed subjects to freely answer the open-ended questions and were prompted when necessary. All interviews were arranged at a participant-preferred location and in the language of their choice (English or Spanish). Questions asked in the interviews (Table 1) included items from the Marin and Marin (1991) acculturation scale, questions about dietary behavior (defined as family food preferences and choices ["American" versus "Latino/Hispanic" foods]; use and exposure to new

foods; teaching children about native foods) along with additional language preference questions addressing educational materials.

Results

Ten mothers participated in the individual interviews, which were all conducted in Spanish, and the researcher of Latina descent was most successful at personal face-to-face recruitment. All respondents were foreign-born, first-generation Hispanic female immigrants to the United States whose parents were all born outside the United States. Table 2 provides demographic information for the participants. The interviews were recorded, translated, and then coded for thematic analysis. Two investigators separately coded the interviews and arrived at common themes (Bernard 2006). Three themes emerged reflecting changes related to the complex process of relocating to a new environment and the impact upon dietary behaviors.

Theme 1 centered on lifestyle and attitude or value changes as they influence food habits and health. Participants mentioned walking less in the United States than in their home countries. They talked of fewer daily opportunities to get physical activity while at home, where walking involved carrying groceries and/or children as well. Manuela explained that "...in Mexico one can eat anything because you have to walk everywhere. There you don't have a car to go to the market... you have to walk to get anywhere" (interviewee, Manuela, 34).

Participants also reported having more spending money, and being exposed to abundant and sometimes poorer food choices. They grappled with accommodating their children's requests for American foods and particularly the less healthy ones. Ana reported, "When one comes to this country and sees everything there and that you can buy it too ... at the beginning I wanted to give [my kids] everything" (interviewee, Ana, 39). Even though only some of the women worked outside of the home, many described more hectic and rushed lifestyles and complained that cooking was very time consuming. Work schedules and time seemed to conflict with managing eating and cooking. Thus, they sacrificed preparing many of their favorite native foods, which now seem to take too long to prepare. One participant said "...in my home my family and my mother we would spend all day making sauces and cooking beans ... now it seems to take too much time and trouble ..." (interviewee, Miriam, 41).

Another change participants recognized was that they were sensitive to the difference between their health belief model and that of their children's American pediatricians. The concept of health and healthy eating was not emphasized in their native cultures. Many respondents indicate that after having lived in the United States for a number of years they now understood that being fat does not mean one is healthy, as they had learned when they were younger. One woman described how some families "eat what [they] like because [they] have money... Well, whoever has money is fat, he's rich. Whoever is poor is thin" (interviewee, Ana, 39). Interviewee Carmen from Colombia explained that in her country being "gordita y cachetona" (or chubby and

chubby-cheeked) meant one was healthy and had a good marriage. She described her parents' shock on seeing her at the airport and their initial reaction to her thinness was to ask her if she was having problems at home with her husband.

Themes 2, "changing dietary choices" and 3, "maintaining their native foods and cultural traditions" were interrelated and both impacted dietary behaviors. They reported that their U.S. diet includes more vegetables, but less fruit than the diets in their native homes. Green vegetable salads and the concept of salad bars are appealing and are a new food that they eat more now. But, fruit intake has gone down since losing the previous supply of fruit and avocados available in their native backyards.

Native foods (beans, tostados, dorados, posole, tacos, etc.) were reported to be the family favorites. They reported exposure to new foods at school events, restaurants, and church potluck dinners. The children want the family to try new foods and to eat like American children. Children ask for peanut butter and jelly sandwiches, Tang orange drink, and pasta salads. One described that her child "...begged me to buy frozen corndogs that he had at school... we ended up throwing them away" (interviewee, Maria 35+). Several participants described using fusion foods with both "American" and "Latino/Hispanic" ingredients, including "macaroni and cheese and adding queso fresco, onions and tomatoes" (interviewee, Claudi 35+). Another described her Mexican alfredo sauce.

Mothers continue to be the primary food preparer and find that their native foods, even when prepared the same way taste different and complained that American ingredients are less fresh, making cooking challenging and time consuming. Participants seemed to be regretful that they cannot readily maintain their native foods and traditions and want to teach their children to cook, but are challenged by the time constraints and disinterest of their children: "...I tell my daughter, you need to learn our ways of cooking, it is our culture ... she just look at me and will go back in her room..." (interviewee, Manuela, 34).

Mothers sensed their role was to teach their children the value of family, culture, and the importance of eating healthfully. While maintaining native foods was considered a hurdle to maintaining traditions, participants also struggled to balance language skills, and keeping native language was seen as a way to maintain their culture. Their children communicate better in English and they communicate better in Spanish. Even with a long-term US residency (10-29 years), the majority of participants reported that they speak only Spanish at home. One mother was disappointed when her oldest son could not read the family Spanish Bible. Participants indicated that they would prefer for educational materials to be written to include both English and Spanish to allow them to learn better English and teach their children to read Spanish. Concepts would be easier to learn with text in both languages, particularly when the Spanish translation does not reflect idioms or words of their native tongue. For example, corn can be

translated into "mafz," "elote," or "choclo" depending on the translator's country of origin. As one mother explained, "I get confused because sometimes I don't recognize the words they use. Yes, it's written in Spanish, but it depends what kind of Spanish we're talking about" (interviewee, Claudia 35+).

Discussion

In this study, parents revealed that the impacts of immigration involved lifestyle, attitude, and dietary changes, and that maintaining native foods and Spanish language skills is an important way to carry on cultural traditions. We found that dietary changes in families related to lifestyle as well as exposure and access to new and sometimes less healthy foods. Children are the primary drivers of the family trying new American foods. Others have reported acculturated Latino children's diets to be of lower quality (Perez-Escamilla 2009), as the parents are more likely to maintain traditional diets, which are often healthier. These subjects indicated that family food favorites are homemade Latino rather than American foods, and the mothers in this study tried to maintain those but also find that cooking is too time consuming and US ingredients lack flavor and freshness. These subjects described both positive and negative dietary changes after long-term immigration, which has been reported elsewhere (Gray et al. 2005; Perez-Escamilla and Putnik 2007). The longer he or she lives in the new country, the more an immigrant's health status tends to resemble the dominant culture (Singh and Siahpush 2002; Arcia et al. 2001). Deterioration of diet quality has been seen with acculturation (Perez-Camilla 2009) but determining why that occurs is confounded by the ability to measure acculturation and discern the impact of various moderating variables such as income, education, and residency. Generally, mothers in this study seemed to acknowledge the potential health risk to their family with changing lifestyles and diets, but report many challenges to keeping the traditional diet. Similar to Gray et al (2005), we found mothers describing work and time constraints as challenging the ability to maintain native foods, as well as trying to teach their children about those foods.

Depending upon the immigrant's region of nativity as well as location of U.S. residency (rural versus urban) and socio-economic status (SES), food choices as well as values about health and weight are variable. Those in urban areas of developing nations are transitioning to using more convenience and processed foods and shifting toward concern about health as global obesity increases (Satia 2010). The participants in this study were primarily from rural areas of developing nations; they grew up with little concern about children's weight, so they struggled to understand that overweight is not well-perceived in the United States and expressed being sensitive to health care workers who heavily promote the message of obesity prevention. Other research with Mexican-American parents has found that while mothers might understand that obesity has negative health consequences, they didn't think this necessarily applied to their own children (Kersey et al. 2010; Brewis 2003). Some participants acknowledged the risks with obesity and have become more concerned about having healthy lifestyles.

Language, like food, was an important part of the means to maintain cultural traditions among the participants in this study. Latinos commonly speak Spanish in the home exclusively (Perez-Escamilla 2009) and teaching language to their children is important to them. The mothers described their children as using “language mixing,” using native language in addition to the other languages. The wider diction provides for greater freedom of expression and a way for immigrants to maintain cultural and ethnic heritage as a source of identity and pride (Altarriba and Santiagorivera 1994). Participants also indicated that they would prefer to see bilingual (English and Spanish) versions of educational materials as a means for them to learn English and to teach their children written Spanish. Bilingual materials are easier to understand when the translation is unfamiliar or not quite accurate, which others have found (Harvey and O’Brien 2011). Accommodating their language use suggestions supports Latino parents in teaching and maintaining cultural traditions and more easily learning about health, which may be new to them. It is important to encourage Latino mothers to maintain their cultural heritages and to pass it along more to their children (Perez-Escamilla 2009).

The abrupt transition for immigrants creates sudden changes and lifestyle shifts. In the United States, a more vehicle-dependent and sedentary, yet hectic, American lifestyle is common. Therefore, first-generation families with children particularly need support given the risk that immigration and acculturation appears to have on adolescent children’s diet and weight.

Limitations

The study was unique in capturing data from Latino immigrant parents of adolescents having long-term (10-29 years) US residency. Their perspectives and experiences regarding dietary and lifestyle changes within their immigrating families in combination with suggestions for educators regarding tailoring materials aimed at them are useful. It is limited by having a small (n=10) number of participants of a limited geographic region and primarily of Mexican descent. However, researchers believed that they reached thematic saturation and that more subjects would not have enriched the results (Mack 2005). Because some of the participants were recruited through snowball sampling, it is possible that the participants were friends and knew each other, resulting in similar outlooks on life, food, and nutrition. Similar studies on other Latino groups are needed.

Conclusion

Acculturation to the United States impacts Hispanic/Latino immigrants’ lifestyle and dietary behaviors. These prominent changes are relevant to educators, considering the extent of health deterioration that has been documented among Latino immigrants. Families with young children need support as perceived lack of time, abundance of tasty and sometimes unhealthy American

foods, and children's desire to eat them puts pressure on parents who struggle to maintain those traditional foods that are often healthier choices (e.g., beans, rice, fruits, etc.). Encouraging parents to cook and finding easy, tasty, and acceptable fusion food recipes may provide needed support. To provide interventions that resonate with the diverse segments of the US Latino population, educators should aim to design effective materials that are bilingual with careful language translation to a specific cultural group. It is important to recognize that learning about nutrition and health may be unfamiliar to some Latino parents who may cling to beliefs about increasing weight as achieving higher social status. Approaches that support parents to adopt and maintain healthy US and native cultural habits may have the greatest potential to impact the health of Latino immigrants. Future research should identify how best to support Latino immigrant parents in promoting healthy behaviors in their children.

Table 1. Language and dietary/lifestyle interview questions

(Table 1 Summary: Language and dietary/lifestyle interview questions)

Language questions	
1.	In general, what language do you read and speak?
2.	What language do you usually speak at home?
3.	In what language do you usually think?
4.	What language do you usually speak with your friends?
5.	When you see nutrition-related advertising or campaigns, in what language (or languages) do you prefer the messages to be in?
6.	What do you think about messages that are only in English, only in Spanish, or in mixed Spanish and English language?
Dietary/lifestyle questions:	
1.	How would you describe the food preferences for your family?
2.	In the time you've lived in the U.S., do you feel your diet has changed?
a.	How has it changed?
b.	Why or what influenced the change?
3.	Describe your family's favorite food choices.
4.	Who cooks in the family? You or your spouse/partner?
5.	Do your adolescent children have favorite food choices?

a.	How your children influence the foods that the family eats?
6.	Do you teach your recipes to your children or how do you teach your children how to cook?
a.	Do you talk to them about food?
7.	What occasions provide opportunities for trying foods that are new to your family?
8.	How willing is your family to try new foods?

*Multiple-choice questions options: (A) Only Spanish, (B) Spanish more than English, (C) Both equally; (D) English more than Spanish, and (E) English only.

Table 2. Demography of interviewed participants (n=10)

(Table 2 Summary: Demography of interviewed participants)

Fictitious Name	Self-reported age (year)	Parity	Birth Country	Highest Education level	Current Employment	Years lived in U.S.
Claudia	>35	3	Colombia	HS	Receptionist	10
Victoria	>35	4	Mexico	HS	Restaurant cook	13
Ana	39	1 ^b	Mexico	Master	Home cleaning	14
Maria	>35	3	Mexico	HS	Social worker	14
Carmen	32	1	Mexico	HS	Catering	15
Marissa	30-35	3	Mexico	MS	Homemaker	17
Miriam	41	3	Mexico	HS	Caretaker	17
Manuela	34	3 ^b	Mexico	HS	Homemaker	19
Andrea	46	2	Mexico	Assoc	Homemaker	21
Luz	50-55	4	El Salvador	Assoc	School lunch cook	29
Mean		2.7	N/A	N/A	N/A	16.9

^a, Highest education level, Assoc=Associate's degree, HS=High School, Master=Master's Degree, MS=Middle School

^b, Pregnant, existing parity did not include expecting child.

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