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Diabetes, Obesity and its Root Causes: A Latino Perspective

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Abstract

Background Health education programs created to reduce diabetes risk emphasize weight loss but results among immigrant Latinos have at best been mixed. Community health workers (CHWs) are familiar with their communities and have experience implementing diabetes interventions emphasizing weight loss, making them an ideal resource. Purpose The purpose of this study is to explore CHWs' views on barriers to weight loss among immigrant Latinos, a major contributing factor to diabetes. Methods Two focus group discussions were conducted with 15 Latino CHWs using a semi-structured guide. A grounded theory approach by Charmaz, informed by the Health Belief Model guided the questions. Results Five themes emerged from the perceptions of the Latino CHWs: (1) Obesity can be the result of lifestyle-related behaviors, (2) Latino culture unknowingly promotes obesogenic behaviors, (3) There is a lack of practical knowledge regarding healthy food options, (4) Family dynamics can hinder weight loss attempts, and (5) The routine demands of daily life serve as barriers to healthy behaviors. Conclusions Despite Latinos' awareness of the role lifestyle plays in obesity, cultural values, family relationships, and immigration factors remain as strong contributors. Culturally sensitive and adapted programming is needed to help address obesity and diabetes among this population.

Keywords: Diabetes; Obesity; Root Causes; National Heart, Lung and Blood Institute

Introduction

Type 2 diabetes mellitus (T2DM) has reached epidemic proportions worldwide, including in the United States. Of the 30.3 million individuals in the United States suffering from this condition, Latinos remain among the most affected groups [1,2].

Approximately 12.1% of Latinos have diabetes, compared to only 7.4% of non-Hispanic Whites [3,4]. Latinos with diabetes are also more likely to experience complications and death than their non-Hispanic White counterparts [4].

Paralleling the rise in diabetes rates, worldwide obesity rates have more than doubled since 1980 [5]. According to the National Heart, Lung and Blood Institute [6], BMI categories classified for overweight individuals are from 25% to 29.9%, and obese individuals have a BMI of 30 or greater. In 2014, more than 1.9 billion adults were overweight, and 600 million were obese in the United States alone. Indeed, obesity has reached an all-time high, with overall adult obesity rates surpassing 40% and childhood obesity rates surpassing 20%, according to new Centers for Disease Control and Prevention (CDC) data [7]. Indeed, Latinos have one of the higher rates: 1 in 4 Latinos is obese, independent of age. Latino children are more obese than their White peers (25.8%vs.14.1%, respectively) and Latino adults are more obese (47%) than Blacks (46.8%), Whites (37.9%), and Asians (12.7%) [8]. Studies suggest that more than 77% of Latino adults are overweight or obese, compared with 67.2% of Whites.

There is a close association between obesity and diabetes: obesity is now considered "the leading risk factor for type 2 diabetes," with early adulthood body weight gain being a predictor of diabetes [9,10]. Obesity increases an individual's risk for developing T2DM, insulin resistance, and metabolic syndrome, especially in minority populations [10,11]. The strong relationship between the growing numbers of people with both obesity and diabetes has been much discussed, as well as the need for early interventions focusing on lifestyle and weight loss [12].

However, these weight reduction interventions have made relatively few inroads with Latinos. Even evidence-based programs such as the CDC's National Diabetes Prevention Program have reported lower enrollment and retention rates for Latinos, especially among those of lower income and educational levels [13]. In addition, Latinos experience more barriers to weight loss than Caucasians, and have lower weight-loss program enrollment and success rates [14-16].

To better understand the role culture plays in Latino rates of obesity, and to increase Latino engagement in weight loss interventions, some health education programs have employed community health workers (CHWs), also known as *promotores de salud* (health promoters). These CHWs, local residents with strong social networks, receive training in relevant health topics to improve the health of individuals and communities [17,18]. An increasing body of research suggests that CHWs can connect and enhance clinic-based services for minorities and persons of low socio-economic status (SES) [19-21]. CHWs have been shown to be effective in reaching minority populations, particularly the Latino community, experiencing disproportionate health disparities and environmental barriers [10,17]. Often seen as leaders in their communities, CHWs are well-qualified to provide insight into needed services, as well as the most effective means of disseminating health information to the community. With shared linguistic and cultural backgrounds, clinic patients are often more comfortable divulging information to a CHW than to their healthcare provider [22]. Therefore, CHWs constitute an invaluable source of information about the communities they serve, along with serving as frontrunners in community outreach, and disseminating health education and materials.

A growing body of research attests to the effectiveness of CHWs' in health programming [19-21]. However, few studies have sought to explore CHWs' own insights into the factors contributing to the rising rates of obesity in their communities. This paper seeks to explore CHWs' thoughts about persistent rates of obesity in Latinos, building on their knowledge of community and experiences with interventions.

Methods

Study Design and Setting

The study explored CHW perspectives on Latino community attitudes about obesity using a qualitative research paradigm with a grounded theory framework by Charmaz [23]. This study was completed in San Bernardino County, located in inland Southern California. More than half of San Bernardino County residents self-identify as Hispanic/Latino, making it the second-largest county in the nation with a Latino majority [24]. In 2014, almost three-quarters of San Bernardino County adults were overweight (38%) or obese (34%); only 27% had a healthy body weight, which is a BMI between 18.5 and 24.9. In contrast, 35.8% of adults in California have a healthy weight.[23] High blood pressure, diabetes, and heart disease rates are on the rise in this county, and rates for each of these conditions exceed those of other California counties [25].

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Indeed, San Bernardino County has the second-highest rate of diabetes mortality in the state of California [2,24].

Participants

A group of 15 women, trained as community health workers, were verbally recruited to participate in this research. The participants (N = 15) self-identified as female, bilingual in both English and Spanish, living and working in San Bernardino County and Riverside County. The women were recruited through the Promotores Academy located in the San Manuel Gateway College in San Bernardino. The women were either current CHW students or had completed the CHW 101 basic training course.

Measures and Evaluation Instrument

Participants completed a brief demographic survey prior to the focus group discussions. Questions in the semi-structured focus group guide were constructed using grounded theory methods by Charmaz [23], which allows the researcher to follow a relevant framework-in this case the health belief model-but adding questions or probes, to deepen the discussion and explore new issues as they arise [23,26,27].

We sought to explore cultural perceptions and norms about obesity within Latino communities. We also sought to identify strategies for weight loss that would be realistic and relevant, address the Latinos' perceptions of obesity/overweight, and provide solutions to some of the barriers Latinos specifically face with weight loss. Weight loss would be targeted towards participants who are overweight/obese (BMIs over 25; classified using BMI scales), whereas those with healthy BMIs (18.5- 24.9) would be encouraged to partake in methods to maintain their healthy weights. The focus group guide explored three main topics: (1) CHWs' perceptions of how the Latino community views obesity and weight management; (2) CHWs' perceptions of barriers (lack of time, low SES, limited knowledge, etc.) to weight management in the Latino community; and (3) CHWs' perceptions of and barriers attributed to Latino cultural factors.

Procedures

Two focus group discussions (FGDs) were held at the San Manuel Gateway College in San Bernardino, and moderated by research investigators of the study, using semi-structured outlines with open-ended questions. Audio recordings were obtained and transcribed verbatim. One focus group discussion was completed in English and the other one in Spanish. The FGDs lasted approximately 45 minutes and were conducted face to face.

Per approval by the Loma Linda University Institutional Review Board, informed consent was obtained in both Spanish and English. All participating CHWs completed an informed consent form which detailed the purpose of the study, the CHWs' role as participants, confidentiality, and voluntary participation. Gift certificates for $20 were provided at the focus groups' conclusion.

Data Analysis

Both audio-recorded FGDs were transcribed verbatim and the Spanish-language focus group was translated into English. As per grounded theory methods by Charmaz [23], coding was performed by two research assistants and used to derive a shared emergent codebook using the data driven inductive approach described by Boyatzis, drawing from grounded theory [22,23]. The codebook was expanded to include codes identified through line-by-line coding. An initial review of the data identified 19 codes, which were subsequently clustered into major codes, resulting in five themes. Final themes and subcategories were determined by constant comparison in the final stage of analysis. Triangulation of data from the focus groups supported the comparisons made within and across our participant groups. Critical quotes were extracted and aligned with emerging themes using the computer 2017 software program MaxQDA.

Results

Participants self-identified as immigrants from South America, Central America and Mexico were mostly female and mean age was 44.13 (± 8.14) (Table 1). Five central themes emerged: (1) obesity and overweight is the result of lifestyle-related behaviors (obesogenic food, sedentary behavior); (2) barriers to healthy weight include competing priorities and lack of knowledge; (3) family dynamics are strong determinants of obesogenic behaviors; (4) cultural values tend to favor obesity and promote obesogenic behaviors; (5) immigration to the United States is a risk factor for obesity. More details regarding each theme and corresponding quotations are presented below.

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Characteristics	N (%) or mean (±SD)
Age / yrs	44.13 (± 8.14)
Gender	**16**
Female	15(94%)
Male	1(6%)
Countries of origin	**16**
Mexico	10(63%)
Central America	4 (25%)
South America	2 (12%)

Table 1: Population Characteristics.

Theme 1: Obesity is a Result of Lifestyle-Related Behaviors

Most CHWs had worked on studies or programs that involved weight or diabetes and had well-formed opinions about these issues. The CHWs cited the combined habits of unhealthy eating and sedentary behavior; the easy and abundant access to low-cost, energy-dense foods, such as fast food, was the next most cited reason for Latinos unhealthy eating and obesity. For example, children often developed a taste for unhealthy food when served processed, sweetened, high-calorie lunches at their school cafeterias; busy families found fast food more convenient-and often cheaper-than preparing food at home; and with Coca-Cola sweeter and less expensive than plain mineral water, few would choose the latter. Sedentary behavior was also mentioned as a cause of obesity, but to a lesser degree than food. High exposure to media and technology were also cited as factors causing obesity, particularly for children. For instance, participants observed families watching television and/or using phones while eating, as well as preferring to watch television and/or play video games over partaking in physical activity at home. Only a few individuals mentioned the role of genes (Table 2 for participant quotations).

Unhealthy	"Eating food from U.S. school cafeterias (pizza, nachos, chocolate milk), one develops a taste for high-fat and high-sugar foods."
	"Instead of packing lunch, it's easier to just buy something around the corner from work."
	"Eating too much during pregnancy."
	"Drinking Coke several times a day."
Sedentary behavior	"Lack of exercise combined with eating junk food."

Table 2: Obesity is a result of lifestyle-related behaviors favoured by the built environment.

Theme 2: Barriers to Healthy Weight Include Competing Priorities and Lack of Knowledge

Most participants attributed unhealthy eating habits-and therefore obesity-to a lack of healthy, affordable options in the community. Healthy foods were not only more expensive than unhealthy foods, they were also less accessible, with lots of fast food restaurants but no farmer's markets or organic food stores in their neighborhoods. Additionally, participants said eating out was preferred by many because of the time needed to shop for healthy ingredients and prepare meals; cooking was seen as a burden, especially when unhealthy food is often much cheaper and more accessible. Making healthy eating a priority over other concerns could result in financial strain and the inability to meet expenses like housing and utilities. Therefore, participants concluded that it was impossible to both eat healthfully and still provide for families' basic needs. Participants said other habits that could help prevent or reduce the risk of obesity, such as engaging in physical activity, would mean less hours of sleep or time with family; the lack of safe places in the neighborhoods to exercise was also a concern. Therefore, for many, eating healthily or exercising regularly, while important in theory, were not considered realistic or sustainable. Participants also emphasized Latinos' lack of knowledge about and misunderstandings on the cost of healthier foods options as a barrier to healthy dietary practices; for instance, using canned vegetables versus fresh vegetables, or serving processed or pre-packaged foods versus making dishes with fresh ingredients, the latter actually being lower in cost. This answered our question if the many years of public information about this had reached "the community." There was a misperception of what "healthy" food means: most associated the term with lettuce, organic food, and juicing fresh, organic vegetables.

CHWs also said many in the community were not aware of the role that lifestyle choices such as good nutrition and regular exercise made in the health of a family, particularly in the long-term effects of obesity-related diseases such as diabetes. Lastly, CHWs lamented that they themselves, as well as others in the Latino community, felt they lacked the knowledge and skills

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needed to prepare healthy dishes that were compatible with their culture. Table 3 includes stated reasons participants gave about why Latinos may not eat healthfully and/or engage in physical activity.

Ignorance about impact of obesity	"Obese youth do not associate obesity with illness, nor are they aware that they are out of shape."
Lack of general information	"People don't try to inform themselves."
	"People don't know about portions."
Lack of practical skills	"We need to be able to make tasty dishes with the same texture that children and spouses are accustomed to."
Perceptions about healthy food	"When you say healthy, most people think, lettuce."
Perceptions about cost	"I'd rather have my stomach full eating junk food than go hungry for spending money on healthy food."
	"People think healthy food is expensive."
Perceptions about importance of healthy food	"Food is usually lower in the budget, after rent and other needs, so often only so much money left."

Table 3: Barriers to healthy weight include competing priorities and lack of knowledge.

Theme 3: Family Dynamics are Strong Determinants of Obesogenic Behaviors

Focus group participants reported that while families sometimes encouraged an individual's attempts at weight loss or healthy behaviors, more frequently the family was a barrier to reaching or maintaining a healthy weight. Spouses-and to a lesser degree, children-were mentioned as barriers to improving eating habits because they resisted changes in the types and quantity of food they were used to. Stress and conflict at mealtimes are at odds with the Latino cultural values of family happiness and unity, and of a wife and mother who provides "good" food for her family. Participants all agreed that healthy behavioral changes would be possible only if all family members were "on board" (Table 4). Moreover, several participants mentioned that Latino men often see overweight women as attractive, despite the associated health concerns, and might object to their partner losing weight; husbands might also worry about their wives "looking too good" and becoming more attractive to other men.

Spouse	"You try to eat healthy at home and the man says, 'Here you go again!'" (44 y.o., MX)
	"There are more issues with husbands. It gets complicated."
Children	"The school gives them pizza and hot dogs' and one has to convince them to take their lunch with them. One is at a loss as to what to send them with." (44 y.o., MX)
	"Sometimes it's hard because the children want to see meat, something with fat in it." (43 y.o., MX)
Other family members	"When you visit relatives, they expect you to eat all they offer you. Otherwise they get offended."

Table 4: Family dynamics are strong determinants of obesogenic behaviors.

Theme 4: Cultural Values Tend to Favor Obesity and Promote Obesogenic Behaviors

Cultural values from the Latin American countries of origin predominantly favored obesity/overweight as a desirable characteristic, often creating ambivalence in individuals who were trying to reach a healthy weight. Children who were medically overweight or obese were seen as healthy; heavy men were seen as better providers, and heavy women were considered more attractive. Most participants felt that it was acceptable and even desirable for men to be overweight or even obese.

Focus group participants reported generational differences among women in terms of how they viewed overweight/obesity. Women in their early forties and over, who have slimmer body figures or are actively trying to lose weight, tended to be perceived as having an illness or weakness, and heavier (even overweight or obese) women were seen as more attractive or desirable.

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Younger women (mid- to late thirties), however, were less likely to see overweight as an indication of health or attractiveness in children or women. Country of origin also played a role: for example, younger participants with a Peruvian background shared the more positive perception of overweight and obesity with their elders.

Other beliefs were common among participants: eating meat and more calorie- dense foods, such as processed and packaged foods, showed that one was prosperous, while eating simpler, healthier staples, such as vegetables and beans, was equated with poverty. Furthermore, eating more food rather than less was highly encouraged, especially among children. Finally, accepting the food offered in social settings was expected and considered polite, and food was associated with affection, love, and even fun. Table 5 shows Latino cultural values that tend toward overweight and obesity or that promote obesogenic behavior.

Children	"Big babies are beautiful and mothers' favorite." (31 y.o., So. MX)
Women	"Young men prefer big women in So. America." (51 y.o., Peru.)
Men	"Thin Latino men are not considered good providers, but bigger and heavier ones are considered to be good at providing for their families." (31 y.o., So. MX)
	"Nobody cares if men gain weight, it's accepted: Oh well." (31 y.o., So. MX; 35 y.o., MX)
Generational change in values	"My mom's generation (mid-50s) still sees big as beautiful and healthy. Not my generation. Today, it's different." (35 y.o., MX)
	"Associating obesity with beauty in women and children was back in the days." (44 y.o.)
Healthy food is for the poor	"People think one doesn't have money if no meat is served." (52 y.o., Guatemala)
	"Beans, rice, tortillas are the food of the 'poor people.'" (61 y.o. male, Guatemala)
	"No meat in the food means there is no money." (61 y.o. male, Guatemala)
Eating food served associated with love	"When you visit family, they insist on you eating everything. Otherwise they get offended." (44 y.o., central MX)
	"Food is the 'glue' for families." (44 y.o., central MX)
	To show affection, or honor a person, one cooks the person's favorite food." (44 y.o., central MX)

Table 5: Cultural values tend to favor obesity and promote obesogenic behaviors.

Theme 5: Immigration to the United States is a Risk Factor for Obesity

Lastly, in addition to their views about overweight/obesity, relocating from their country of origin to the United States was seen as a major contributing factor to unhealthy weight. Several mechanisms emerged as contributing to overweight and obesity on both the personal and environmental levels. At a personal level, immigration to the United States meant a faster-paced lifestyle was necessary in order to earn a living, leaving little time to prepare healthy foods or exercise. It also opened up more access to a wider range of food choices, including more calorie-dense, processed foods, and fewer of the simpler, healthier foods from their native countries. On an environmental level, the dramatic increase in Latinos' consumption of processed foods, the high cost and lack of access to healthy food options, and the fewer opportunities for recreation and physical activity were seen as simply parts of the process of acclimating to life in the United States (Table 6).

Changes in access and exposure to food	"Also, when I moved here and found out that junk food and Coke was cheaper than [in] my country, I indulged to the max. It took me a while to realize that it was not OK."
	"Back home, my source of sugar was fresh fruits. Here I had access to so many options I started eating too much food."
	"I ate rice and beans…and we ate only three meals a day-no snacks or chips-but I never got sick. And I don't remember seeing anyone obese in my hometown." (MX)
	"Super large portions in this country."
	"Billboards all over the place and freeways advertise foods that are high in fat and calories."
	"Single moms don't have time so they use the drive-thru extensively."

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Lack of time	"People are always running in this country. In order to avoid the extra work of washing and cleaning up it's just as easy to buy ready-made food elsewhere." (31 y.o., So. MX)
	"With the busy schedules we have, who wants to get up at 5AM to exercise? Nobody!" (31 yo. So. MX)
Anxiety	"One ends up eating sweets to deal with the anxiety of moving into this country and not finding a job." (52 y.o., Uruguay)
Physical Activity	"We walked and walked everywhere. We had no electronics." (61 y.o.,Guatemala)

Table 6: Immigration to the United States is a risk factor for obesity.

Discussion

This study explored CHWs' perceptions of obesity and the factors associated with successful weight loss in the Latino community. Community health workers are not only serving the Latino community; they are part of the community. As such, the women had seen firsthand the problems Latinos experienced with unhealthy weight and had given much thought to how they could help educate Latinos about making better lifestyle choices and losing weight. The CHWs participating in this study recognized obesity as a risk factor for lifestyle diseases such as diabetes but felt many in their community were not aware of the relationship between poor diet, lack of exercise, and developing chronic disease later in life. Even for those who understood these connections-including the CHWs themselves-concerns about obesity leading to serious health problems were not enough to support lasting behavior change. Bhargava and colleagues [28] showed a similar disconnection between knowledge and behavior change in their study measuring knowledge deficits related to behavior change among diabetic Hispanic versus non- Hispanic patients [29,30]. Latinos struggle to incorporate knowledge of healthy lifestyle behaviors into daily practice, even those who are required to maintain a healthy weight and lifestyle due to obesity-related illnesses [30]. However, this lack of correlation between knowledge and behavior change appears to be intricately linked to perceived socioeconomic, environmental, cultural, and even language factors [29,30]. Studies from both Chatterjee et al. [30] and Rosas et al. [15] on the perceptions of obesity in Latino communities, show similar findings of individuals' understanding of the causes of obesity, even though they were unable to sustain long-term behavior change. In all of these studies, individuals were asked about their perceptions from a vantage point of preventing obesity, losing weight, and maintaining a healthy lifestyle. The environmental, cultural, and personal barriers discussed in this study, as well as those found in other research, hinder Latinos' efforts to achieve and maintain a healthy weight, helping to avoid the debilitating effects of diabetes and other chronic diseases. Several barriers emerged to weight maintenance and weight loss; one of the most significant was the perceived high cost and unavailability of healthy foods, as compared to more processed or prepared foods. Lack of access to healthy foods, consumption of foods high in sugar, and limited safe places to exercise have been cited as problems associated with obesity, which are also shared by persons of low socioeconomic status [10,15,31]. Studies have also reported a disproportionate trend for obesity among low-income communities, particularly Latino populations [11,16,31]. Another barrier to healthy eating and exercise cited by participants was lack of time. Women were more likely to have a job outside the home, and juggling work and family responsibilities often left little time for cooking meals, leading to a reliance on processed foods and takeout [31]. Indeed, we found that family dynamics were some of the most important factors influencing obesity and readiness to adopt healthy behavior. There is little research on the negative effects that Latino family dynamics may have on the efforts of a family member to lose weight, but our research suggests that involving the family in any lifestyle intervention is vital to its success and sustainability [11,15].

Findings from this study also indicated that cultural factors, particularly for Latino immigrants, served as key to attitudes about obesity. Participants discussed a common belief that increased weight related to beauty, health, and economic status; healthy foods were typically associated with poverty for recent immigrants. Studies in Latino adults and children suggest knowledge and beliefs about obesity are influenced by culture [16,31]. Culture, as well as diet and exercise, has been shown to contribute to obesity in Latinos [16].

Given the significant effect culture has in the prevalence of obesity for Latino communities, lifestyle-

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based treatment and prevention programs must be able to provide culturally and linguistically appropriate strategies for dealing with obesity [16,32-36].

Many participants in this study were first-generation immigrants who described the changes in their physical and dietary behaviors after immigrating to the United States. Because Latino immigrants are often underrepresented in lifestyle interventions, few studies touch on the role of immigration in the prevalence of obesity in the Latino community [15]. However, Rosas, et al. [15] and Chatterjee, et al. [30] have shown that high rates of overweight and obesity in Latinos are positively correlated to recent immigration and low education and socioeconomic levels [15,31]. This qualitative community-based participatory research revealed how the social and cultural values of immigrant Latinos can contribute to obesity and its related diseases. These include more access to sugary and processed foods, fewer opportunities to exercise, and time and financial stresses. More research is needed to explore the health challenges facing immigrant Latino individuals as they acclimate to life in the United States.

Study Limitations

Our participants consisted of community health workers recruited from a single source: The Promotores Academy in the San Bernadino San Manuel Gateway College. The participants came from a variety of Latino countries, including Mexico, Guatemala, Ecuador, and others, which reflect the diversity of the local immigrant community. However, no information was collected about the participants' income or education levels. In addition, it is unknown whether participants themselves were currently or formerly obese, and whether or not these personal attributes influenced their responses. Future studies should collect additional data and involve a wider range of community health worker participants.

Conclusion

Using the health belief model, which guided our study, we learned that for many immigrant Latinos the connection between obesity and later disease is tenuous at best. Public health efforts at establishing a link between lifestyle choices such as healthy diet and exercise and the prevention of obesity and chronic disease later in life should be made. Additionally, for our respondents, barriers to reaching and maintaining a healthy weight were stronger than the touted benefits of weight loss; indeed, for some participants, losing weight or changing their diet were seen as risking familial and intimate relationships, or rejecting cultural norms about beauty, health, and even financial success. The results of this research add to the findings of previous qualitative studies on obesity in immigrant and U.S.-born Hispanics/Latinos and support the development of culturally relevant obesity prevention programs that address these barriers. Clearly, the benefits of weight loss promoted by public health messaging campaigns are not resonating either with our participants or with the immigrant Latino community. This study has detailed how immigrant Latinos' beliefs and perceptions about obesity affect their current health behaviors,[21] which will affect their risk for developing diseases later in life.[21] Given the prevalence of obesity and its resultant comorbidities in this community, increased understanding of these perceptions is critical to developing effective outreach and interventions to help sustain lasting change.

Practice Implications for Clinicians and Health Educators

Based on the results of this study, it is important for clinicians attending to immigrant Latinos at risk of obesity-related diabetes to consider how culture and family dynamics will need to directly explore and address these issues to support recommended health behaviors, such as changes in diet and increased exercise. Clinicians should team up with health educators, including community health workers, to develop and promote interventions that take into account the cultural and lifestyle needs of their patients.

Health educators and clinicians alike would benefit from training on the cultural values that inform attitudes about obesity and health in this community. In addition, health professionals should also seek to understand how the strong cultural identify shared by many immigrant Latinos that protects against unhealthy behaviors like tobacco or illegal drug use can also make it difficult to change long-held attitudes about obesity, beauty, and health. Programs should acknowledge the conflicts and anxiety that can occur when a family member attempts to lose weight or adopt a healthier lifestyle, and also look for foods and cooking methods that align with the community's traditions, tastes, and values. Ideally, any type of behavior change-eating habits and exercise-should involve the family as a whole in order to be sustainable. While many attitudes about obesity and health were similar regardless of country of origin, our study also

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found differing views among the participants. The insights shared by the CHW participants could help health care providers better understand their immigrant Latino patients' health goals, preferences, and familial needs.

The importance of culture and its impact on the health of the Latino community is evident, which makes it imperative that weight loss programs invest in developing a culturally tailored curriculum addressing the specific needs of the Latino community: CHW-led weight loss programs are one such way to reach the Latino community effectively. The lifestyle-related costs of comorbid diseases, if not of caring for the patients themselves, should lead us to consider such changes to more effectively address the current health disparities.

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