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The Communal Integration of Nutrition-Related Cultural Assets of the Latinx Population in the Greater Dayton Area

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The Communal Integration of Nutrition-Related Cultural Assets of the Latinx Population in the Greater Dayton Area



Honors Thesis

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Department: Health and Sport Science

Advisor: Diana Cuy Castellanos, PhD, RD, LD

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Abstract

Due to a series of social determinants, the Latinx population currently living in the United States is suffering from a multitude of health disparities. Many of these disparities are nutrition-related, as the health issues that most disproportionately affect the Latinx population are obesity and diabetes. In order to treat these dietary-related health disparities, one must examine the complex aggregation of factors that work to influence specific dietary habits. Dietary habits are impacted by a series of individual, social and environmental factors. Moreover, in the case of Latinx nutrition, the level of acculturation, or cultural adjustment, plays a crucial role in determining dietary behavior. By utilizing the socio-ecological model of public health, these specific constructs can be carefully analyzed to determine their explicit impact on dietary behavior. After pinpointing the distinct function of each construct, the exact dietary-related needs and assets of a particular community or target population can be identified.

The East Dayton area as a whole is affected by incommensurate poverty and food insecurity, with the Latinx population possibly more affected as they may be more detached from various community resources due to language and/or cultural barriers. East End Community Services and Mission of Mary Farms, two non-profit organizations in the East Dayton area, have both expressed their inability to engage the Latinx population within their nutrition community programming. The goal of this research was to work with key community partners in order to adopt both an asset and needs-based analysis that properly identified the specific nutritional needs of East Dayton's Latinx population. Through a comprehensive literature review and semi-structured interviews, in-depth information pertaining to the nutritional needs of the Dayton Latinx population was obtained. The conclusions drawn from the assessment results were then given to local community organizations, Mission of Mary Farms and East End Community Services. The data then

helps to provide insight for the development and implementation of culturally-tailored nutrition interventions for the Latinx population.

Dedication and Acknowledgements

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Introduction

Health of the U.S. Latinx population

As stated in the 2018 United States Census Bureau report, Latinx citizens account for over 18.1 percent of the United States population. By the year 2060, it is projected that the percentage of Latinx citizens living in the United States will rise significantly to approximately 28.6 percent (U.S. Census Bureau, 2018). As the largest ethnic minority in the United States, it is crucial that proper measures are taken in order to ensure adequate health care and resources for Latinx citizens. As a whole, the Latinx population suffers from a high rate of health disparities caused by certain social determinants. Social determinants of health exert health effects on individuals through allostatic load, “a phenomenon purported to cause chronic stress, which elicits behavioral risk factors such as poor diet, sedentary behaviors and substance use, as well as biological processes such as circadian rhythm disruption, cytokine responses and inflammation.” (Velasco-Mondragon, et. al, 2016). These health inequalities occur mainly as a result of the difficulties created by their socioeconomic status, cultural background, employment status and foreign-born or undocumented status (Stone & Balderrama, 2008).

The U.S. Latinx population and dietary-related health disparities

In terms of nutritional health, many of the behavioral risk factors emanating from the allostatic load phenomenon are reflected in the nutritional decisions and diet culture of Latinx citizens. The Latinx population is disproportionately affected by a multitude of nutritional diseases, particularly obesity and diabetes. While obesity is an ever-growing issue and current epidemic for all groups within the United States, it has a significantly higher prevalence among Latinx citizens. According to the 2015 Census report, adult Latinx Americans were 1.2 times more likely to be obese than non-Latinx Whites, and Latinx children being 1.8 times more likely than non-Latinx White children. The severe obesity epidemic has played a key role in the development of several other health issues amongst the Latinx population. Some of these health issues include metabolic syndrome (insulin resistance), non-alcoholic fatty liver disease (NAFLD), diabetes and cardiovascular disease (U.S. Minority Health, 2017). According to the National Health Interview Survey, Latinx citizens are almost *twice* as likely to be diagnosed with diabetes by a physician when compared to Non-Latinx Whites (NCHS, 2017). The Centers for Disease Control and Prevention (CDC) has strongly emphasized the notion that many of the leading causes of death for Latinx citizens, such as heart disease, diabetes, cancer and stroke, are direct consequences of obesity.

East Dayton’s Latinx population

When examining Latinx health on a local level, specifically within the East Dayton region, U.S. Census reports indicate the Latinx population has been rapidly growing. From 2000 to 2017, Dayton’s Latinx population grew from 2.4 to 6.2 percent. The most recent U.S. Census report found that in the East Dayton neighborhood, or of those residing within the 45410 zip code, 29.3 percent of households reside below the poverty

line and 7.1 percent of citizens are unemployed. When comparing this to U.S. Census data, the East Dayton neighborhood almost doubles both the national unemployment and poverty rates. While U.S. Census data specific to the Latinx population residing within this area is currently unavailable, it is plausible that the Latinx population is disproportionately affected by the current poverty crisis and aforementioned health disparities.

In spite of its current financial circumstances, the East Dayton neighborhood has continued to implement a variety of valuable and effective community efforts to address poverty and health issues. Several non-pro organizations within the East Dayton region are currently working to increase the quality of life within the community by providing the necessary resources and assets to its citizens. Some of these organizations include: St. Mary's Catholic Church, Target Dayton, Mission of Mary Farm and East End Community Center.

Collectively, East End Community Center and Mission of Mary Farms have made a substantial effort in combating the current issues of food and economic social justice within the East Dayton community. For example, East End has recently implemented the Food Access Resiliency Enterprise (FARE) initiative which focuses on increasing food affordability and access to East Dayton families. The FARE initiative provides various neighborhood development programs such as backyard and community gardens, advanced farmer training, mobile food pantries and organized farm markets. Apart from this, Mission of Mary Farms has worked to implement various food growing initiatives throughout the community. Some of these initiatives include: farm education visits, backyard gardening programs, community garden beds, teen employment programs and various workshops that focus on gardening, food preservation, cooking and sustainability.

Mission of Mary Farms and East End Community Services have both indicated their struggles with engaging the Latinx population in their community programming. Although East Dayton has a substantial Latinx population, Latinx involvement and participation within various community initiatives is considerably low. As East Dayton is a very ethnically diverse neighborhood, it encompasses a multitude of cultural assets, especially in the area of agriculture and food. By having community members share their unique and individualized assets with the general community, the East Dayton neighborhood would be exposed to a wider base of skill sets and resources — ultimately allowing the region to become increasingly more financially sound and healthy. As depicted in the second level of the socio-ecological model of public health, interpersonal relationships play a crucial role in shaping one's dietary behaviors. Inter-relational networks have great influence as they encompass the relationships and social interactions that a person has. By promoting community engagement, these organizations can work to boost healthy relationships among Latinx citizens and ultimately improve their overall health. Healthy relationships with friends and community members are crucial in the development and implementation of healthy dietary behaviors. New behaviors are much more easily adopted when an individual has reliable community resources and a proper support system.

Dietary behavior and nutritional assets of the Latinx population

Typical foods in a Latino diet include: beans, corn, peas, squash, tomatoes, rice, poultry, fish, cocoa, cactus and coffee. A traditional Latino diet is typically very high in fiber and is of high nutritional value. Research has consistently shown direct correlations between a traditional Latinx diet and lower mortality rates from chronic diseases (Cuy Castellanos, 2014). Many Latin American countries have greater access to fresh fruit and vegetables, as well as limited access to “ultra-processed foods”. Fresh produce is often significantly cheaper than processed convenience foods in countries such as Mexico and Guatemala (Pérez-Ferrer, et. al, 2019). However, during the process of dietary acculturation and the transition to a more Westernized diet, many of the nutritional benefits of a typical Latinx diet are compromised (Velasco- Mondragon, et. al, 2016). When assimilating into U.S. culture, the Latinx diet is often negatively affected by a wide-variety of social, behavioral, environmental and dietary-related psychosocial factors. For example, it has been found that Latinx citizens with a higher level of acculturation tend to consume a significantly higher amount of fatty and low-nutrient foods in comparison to Latinx citizens with a lower level of acculturation (Van Hook, et. al, 2018). Due to the limited availability of fresh produce and higher food prices, many Latinx citizens find it difficult to find fresh and affordable traditional foods within the United States (Pérez-Ferrer, et. al, 2019). Additionally, the fast-paced and time- oriented culture of the United States prevents many Latinx citizens from following their typical meal schedule. Other common barriers that members of the Latinx population face during the dietary acculturation process can include lack of cooking skills, social interaction and an altered home structure (Cuy Castellanos, Miller, 2017).

Dietary habits and the Socio-Ecological Model

In order to develop an effective solution to assuage the health inequalities affecting the Latinx population, one must appropriately assess and evaluate the specific factors that impact dietary habits. Dietary interventions must be individualized and culturally-tailored as the dietary habits of an individual are influenced by an aggregation of these intricate factors. Furthermore, the overall degree of acculturation, or cultural adjustment, plays a critical role in the health inequalities experienced by an individual. The complexity of these factors can be clearly explained through the socio-ecological model of public health (see *Figure 1*).

While the model is composed of five separate and distinct levels, each level overlaps with the other levels — signifying how a variety of factors affect the overall behavior of a community and environment. The first level is the “Individual” level, which includes knowledge, attitudes and skills related to the target behavior. The second level is the “Interpersonal” level, which examines how social networks, such as relationships with family and friends, can influence individual behaviors. Following this, the third level is the “Organizational” level, which analyzes how the rules and regulations of certain social institutions affect how efficiently public services are distributed to a specific individual or group. Next, the fourth level, or “Community” level, explores how relationships among

various institutions and organizations work to affect an individual's actions and behaviors. Lastly, the fifth level, or "Public Policy" level, measures the effects that local, state and national governments have on the allocation of resources to its citizens.

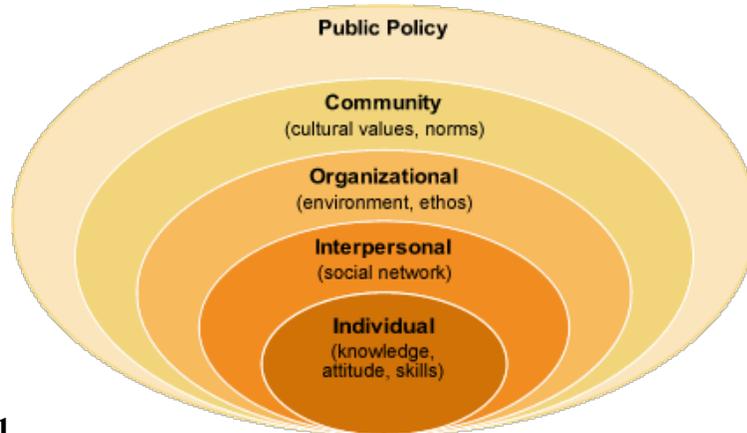


Figure 1

Adapted from: Bronfenbrenner, U. (1977). Toward an experimental ecology of human development. *American Psychologist*, 32(7), 513-531.

Factors Affecting Latinx Dietary Habits

The socio-ecological model can help researchers to conceptualize factors affecting dietary behavior and to better understand their intricate connections. By dividing the various dietary-related factors into well-defined categories, the model provides a distinct explanation as to why an individual engages in certain dietary behaviors, which essentially allows for the adaption of more effective dietary interventions. In the case of Latinx nutrition, some of the factors examined include, but are not limited to: food insecurity, cultural feeding patterns, health inequalities and lack of preventative care, behavioral factors, social dietary norms and targeted advertising for highly processed and low-nutrient foods (Velasco-Mondragon, et. al, 2016). To allow for a more straightforward conceptualization of the socio-ecological model in relation to Latinx nutrition, a chart representing the various dietary factors and their corresponding levels is included in *Table 1*.

Table 1

Definitions of the constructs in the Socio-Ecological Model

<u>Socio-Ecological Model Level</u>	<u>Description</u>
1.) Individual	This level looks at how one's various traits and identities affects their overall health. It typically would examine genetics, lifestyle, diet, exercise patterns, education, level of acculturation, income, and legal status. This level provides the basis for the entire model.

2.) Interpersonal	This level examines one's interpersonal relationships and how it affects their overall health and dietary habits. Healthy relationships can encourage desirable eating patterns and habits and can promote a positive lifestyle. These relationships could range from being between friends, neighbors, family, or co-workers. The model examines how the nature of these relationships impacts one's eating patterns and nutritional choices.
3.) Organizational	This level examines the various organizations that have the biggest impact on Latinx health and dietary habits. The organizations with the biggest influence would most likely be schools, churches, and certain community engagement programs. These organizations have great influence as they can implement regulations that affect one's behavior and habits.
4.) Community	This level focuses on how Latinx nutrition is shaped by their interactions with communal organizations. It examines the overall customs of a particular environment and the effects it has on dietary habits. For example, it could look at Latinx participation in community programs and how it affects their overall nutritional health.
5.) Public Policy	This level includes state or national policies affecting Latinx nutrition as a whole. Examples of this could include FDA legislation, Low-Income food assistance regulations, and various regulations surrounding the issue of food insecurity.

Methodology

Due to its multifaceted nature, this research required two separate phases and used a mixed methods design. The first phase mainly consisted of the engagement in a community nutrition assessment geared toward the precise identification of nutrition-related needs and assets. The socio-ecological model was used to inform the assessment and data collection procedures (see *Figure 1*) to allow for a better understanding of the multiple levels of a community's social system. This phase relied on the utilization of a pilot data questionnaire and semi-structured interviews to collect information. The pilot data questionnaire evaluated the extent of which certain factors impacted an individual's dietary intake and habits. Some of these factors included: cultural identity, socioeconomic status, nutritional knowledge, cultural identities, and food access. The questionnaire was adapted by prior research by Silva-Sanigorski and colleagues (2010). In their research, the socio-ecological model was utilized to inform data collection.

Participants in the pilot data collection included 10 individuals from the target population. Specifically, questionnaires were distributed during dismissal at Miracle Makers--a summer enrichment program through East End Community Services.

Following this, a comprehensive literature review was conducted to provide context and information on the traditional diets consumed by individuals from Mexico, Central America, and Spanish-speaking Caribbean countries. Using the databases PubMed, Google Scholar and, Health Source and CINHALL and the key words “Hispanic/Latino(a)(x)”, “dietary intake or quality or consumption or practice”, “diet” and/or “acculturation”, we examined peer-reviewed studies to determine common dietary practices and intake in the home and host countries. The literature review served as a comparison tool and helped to reaffirm the data collected within the semi-structured interviews.

Semi-structured interviews were conducted with seven foreign-born Latinx individuals living in the greater Dayton area. The interviews were essentially an informal conversation that utilized particular probing questions to obtain a more in-depth perspective of participants’ dietary patterns. By employing a more conversational approach, participants provided more authentic information, which facilitated a more in-depth understanding of participant’s dietary experiences in the US. The interviews lasted between 30 to 45 minutes and were audio-recorded. Due to the circumstances surrounding the COVID-19 pandemic, all but one of the interviews were conducted via Zoom Video Conferencing. The first interview was conducted in early March of 2020—prior to the enactment of social distancing protocols.

Semi-structured interviews were both translated and transcribed. Two trained researchers coded the interviews and identified common themes. Through constant comparison, themes that emerged from the interviews were compared to the comprehensive literature review to identify any consistencies and recurring themes. The themes were collapsed into main categories related to dietary practices and intake in the target population. The two researchers then interpreted the data to draw conclusions about the specific assets and needs important to the Latinx population living in East Dayton. The intent of the results was to inform culturally-tailored interventions in the Dayton area. Specifically, these results will be communicated to local non-profit organizations, such as Mission of Mary Farms and East End Community Services in an effort to increase Latinx participation within their community programming. By being better informed on the particular dietary preferences and cultural assets of the Latinx population, these organizations will be more equipped to engage and close particular nutritional gaps.

Results

Pilot data

The pilot data was obtained from written quantitative surveys that were administered to 10 participants. Specifically, the surveys were administered in July of 2019 to parents of preschool children at East End Community Services' summer enrichment program. The survey assessed a multitude of factors such as demographics, food preferences, food accessibility, and nutritional knowledge. Although there was a small sample size, the data helped to highlight gaps within the research and help to inform the questions for the semi-structured interviews. The pilot data is included in Figure 1.

Figure 1

<p><u>Descriptive Statistics</u></p>	<p>Average Age: 32.67 Average # of Children: 3.22 Average Household: 5.25 people Average BMI: 28.4</p> <ul style="list-style-type: none"> • Lowest: 22.29 • Highest: 33.67 <p>Country of Origin:</p> <ul style="list-style-type: none"> • Mexico: 55.6% • Other: 44.4% <p>Immigration Year to US.:</p> <ul style="list-style-type: none"> • [2009 - 2019]: 62.5% • [1996 - present]: 37.5% <p>Accompaniment to US:</p> <ul style="list-style-type: none"> • Came with someone: 88.9% • Alone: 11.1%
<p><u>Frequency Statistics</u></p>	<p>English Proficiency:</p> <ul style="list-style-type: none"> • 85.7% [At least Moderately Fluent] <p>Education Level:</p> <ul style="list-style-type: none"> • Less than High School: 25% • High School Diploma: 62.5% • College: 12.5% <p>Employment:</p> <ul style="list-style-type: none"> • Stay at Home: 50% • Service Job: 37.5% • Professional Job: 12.5% <p>Civil Status:</p> <ul style="list-style-type: none"> • Married: • Living with Partner: • Single: <p>Religion:</p> <ul style="list-style-type: none"> • 87.5% Catholic <p>Church Attendance:</p> <ul style="list-style-type: none"> • 62.5% [Regularly Attend]

<u>Nutritional Statistics</u>	<p>SNAP Participation: 28.6%</p> <p>WIC Participation: 57.1%</p> <p>Nutritional Knowledge Score: 73.3%</p> <p>Fat Score:</p> <ul style="list-style-type: none"> • Excellent: 66.67% • Good: 16.7% • Fair: 16.7% <p>Fruit and Vegetable Score:</p> <ul style="list-style-type: none"> • Poor: 57.1% • Fair: 14.3% • Good or Above: 28.6% <p>Food Access (By Car):</p> <ul style="list-style-type: none"> • 10-20 minutes: 57.1% • < 10 minutes: 42.9% <p>Food Access (By Foot):</p> <ul style="list-style-type: none"> • > 20 minutes: 50.0% • 10-20 minutes: 33.3% • < 10 minutes: 16.7%
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Comprehensive literature review

In Latinx countries, such as Mexico, Puerto Rico, El Salvador, and Honduras, there are many shared values and beliefs pertaining to nutrition. Among these countries, there is a strong emphasis on whole foods and consuming a diet that is rich in fruits, vegetables, complex carbohydrates, and fresh protein sources. Specifically, there are consistencies in the regular consumption of corn products, beans, rice, and poultry. There is also regular consumption of fresh and natural fruit juices. In regard to dietary-related acculturation changes, it has been shown that most Latinx individuals have increased their consumption of saturated fats, sugar-sweetened beverages, convenience foods, and refined and low-fiber foods. Country-specific acculturation changes are included in Table 2.

Table 2
Traditional diet and dietary acculturation in the Latinx population by country of origin

<u>Country</u>	<u>Traditional Diet</u>	<u>Acculturation Changes</u>
Mexico	<ul style="list-style-type: none"> - <u>Complex Carbohydrates:</u> corn products, beans, rice, breads - <u>Protein:</u> beans, eggs, fish, shellfish, pork/poultry, chorizo - <u>Fruits:</u> pineapple, papaya, mango, fresh juices - <u>Vegetables:</u> tomatoes, squash, avocados, sweet potato - <u>High Fat Diet:</u> extensive use of frying with cooking 	<ul style="list-style-type: none"> - Increased consumption of meat and saturated fats - Increased consumption of sugar-sweetened beverages - Increased fat consumption (margarine, butter, salad dressings) - Decreased consumption of lard and Mexican cream

Puerto Rico	<ul style="list-style-type: none"> - Staple foods: fish, poultry, corn products, beans, rice - High fresh fruit and vegetable intake - Regular consumption of fresh and natural juices 	<ul style="list-style-type: none"> Increased consumption of Western fast foods, poor-quality carbohydrates, sugar-sweetened beverages Decreased intake of fruits and vegetables, high-fiber foods
El Salvador	<ul style="list-style-type: none"> - Complex Carbohydrates: corn products, beans, rice, breads - Protein: beans, eggs, fish, shellfish, poultry - Fresh fruits and vegetables - Frequent consumption of fresh juices - Traditional, homemade cooking 	<ul style="list-style-type: none"> - Increased consumption of fast foods, processed foods, saturated fats - Increased consumption of sugar-sweetened beverages - Significantly decreased access to traditional Salvadoran foods [Financial, Geographic Barriers]
Honduras	<ul style="list-style-type: none"> Staple Foods: beans, corn, tortillas, and rice - Basic method of preparation: boiling, simmering, stewing, and frying 	<ul style="list-style-type: none"> - Increased saturated-fat intake - Increased sugar intake - Increased intake of refined and low-fiber foods - Increased intake of meat

Semi-Structured interviews

Seven different semi-structured interviews were conducted with foreign-born Latinx individuals living in the greater Dayton area. There were six female participants and one male participant. All participants were married or living with their partner. Every participant had children except for the male participant. Four of the interviews were conducted with participants from Mexico and one of the interviews was conducted with a participant from El Salvador. The interviews were then translated and transcribed to identify recurring themes amongst the participants.

Food consumption

On the whole, participants emphasized the importance of eating fresh and healthy foods. For most participants, fresh produce was consumed at every meal along with lean meats and fresh cheeses. Additionally, traditional ingredients such as tortillas, tomatoes, beans, rice, and spices were often consumed. Due to work-related time constraints, the meal composition of breakfast and lunch was often affected. Participants stated that they often ate simpler meals at breakfast and lunch time due to work-related time constraints. One participant indicated, “I work at 5 o’clock in the morning during the week, so breakfast is small” (Participant 5). Additionally, some participants mentioned that they chose to eat certain foods during the workday to avoid feeling sluggish. Participants liked to consume a variety of fresh fruits and vegetables during the day. Specifically, Participant 6 stated, “I try to eat vegetarian, at least during lunchtime because eating heavy gets me sleepy”. Common foods that were consumed at breakfast time included yogurt, toast, cereal and fruit. In regard to lunch, participants preferred to consume more traditional foods such as

rice, beans, and corn-based products. Some participants even chose to delay lunch and eat in the late afternoon in order to consume a more traditional meal. If participants elected to pack a meal, a typical lunch consisted of a meat-based sandwich accompanied with fruits, vegetables, or nuts. Furthermore, most participants stated that they did not regularly engage in snacking and aimed to eat only at specific meal times. However, when participants did consume snacks, they often consumed foods such as cereal, crackers, nuts, and fruit. At dinner, participants tended to consume more traditional ingredients. For multiple participants, dinner consisted of meat, rice, tortilla, and fresh vegetables with spices.

Dietary-related perceptions and beliefs

There was a strong consensus among participants that consuming fresh foods such as fruit, vegetables, and lean meats was the healthiest option. Additionally, two participants emphasized the importance of consuming foods with little fat or additives. Every participant believed that convenience foods and fast foods were high in fat and bad for health. Participant 3 specifically mentioned that fried foods such as “chicken and fries” cause negative health effects. Most participants also noted that soda and other sugar-sweetened beverages had negative effects on health. Following this, Participant 6 noted how convenience foods are typically the most affordable, despite their diminished nutritional value. Participant 6 specifically stated, “I had to buy the cheapest foods...ramen was dinner; you can buy a whole box for \$5”. Participant 6 also discussed how many of these convenience foods and excess carbohydrate and trans fat intake can contribute to weight gain. On the whole, most participants associated high-fat, fried, or sugary foods with weight gain and poor health status.

Food access and shopping patterns

All participants went grocery shopping at local supermarkets such as, Kroger, Walmart, or Meijer. Most participants noted that they could find almost everything that they needed. However, a few participants noted that the foods sold in supermarkets were not as fresh as foods sold in their home countries. There was a general consensus that frozen and canned foods had a somewhat undesirable taste and were not of the same quality of fresh produce. Furthermore, multiple participants noted that meats, in particular, were lacking freshness and often were overly processed. Participant 2 stated, “In Mexico, there are markets for fruits and vegetables where they are fresher. The adjustment was to these big supermarkets and finding all the food I need”. Following this, 3 different participants mentioned that they went to local Hispanic food stores, such as La Michoacana, if they needed specialty ingredients for a traditional dish. There was general consensus that traditional Hispanic grocery stores were more expensive and often far away. Participant 3 specifically stated, “The grocery stores in the United States do not sell the same quality of fresh foods. I miss the traditional foods of Mexico. I now can only eat these foods as a special treat”. There was a general consensus that participants could not access traditional foods to the extent that they would like. With this being said, most participants were unaware of local nutrition and gardening programming. When asked about Mission of Mary farms and other local produce markets, participants reported that they had little

knowledge. One participant indicated she had gone to the local market but did not realize it was still open.

Food preferences

Among all of the participants interviewed, there was a strong preference for the consumption of fresh and traditional foods. All of the participants expressed the idea that fresh produce is the healthiest food option. Participants 1 and 2 both emphasized the importance of consuming a “colorful plate” during meal times. However, many participants emphasized that the quality of foods offered in the United States was significantly poorer than that of the foods offered in their home countries. Participant 2 specifically referenced the high prevalence of canned and frozen fruits and vegetables within the United States. She expressed her dissatisfaction with these food products and even noted that she would refuse to consume them. Additionally, there was a strong preference for consuming homemade meals and wanting to limit the consumption of processed foods. Participant 7 specifically stated, “In the summer, I hope to grow my own vegetables--tomatoes, peppers, zucchini, onions, and garlic. I am trying to bring El Salvador to my home and grow my own stuff. I am really trying to be more local with my foods”. This strong preference for fresh and traditional foods is consistent among most participants. Many participants crave the flavors of home, however cannot create them due to lack of access to traditional spices and foods.

Child preferences

For all of the participants with children, there was a general consensus that the majority of children did not like the foods served at school lunch. Additionally, many of the participants were dissatisfied with how unhealthy school meals were. Participants perceived the school meals to consist of processed and high in fat foods. Participant 1 even stated, “My children when they go to school, there is all this different type of junk food that they then ask me to buy at home; I think that the schools are not serving the best meal options for students and are not teaching them the best nutrition”. The majority of participants felt that the foods provided at school were teaching children unhealthy nutrition habits and encouraging them to eat more “junk” foods when at home. Participant 1 expressed that her children genuinely like to snack on healthier options such as “strawberries, blueberries, pomegranates, and peppers”. However, she added that her children always ask her to purchase the snack foods that they consume at school. Furthermore, other participants noted that their children did not like the food options offered at meal time and often just filled up on snacks and processed foods throughout the day.

Dietary changes

Overall, most of the participants reported only minor changes to their diet since living in the United States. Most participants reported that they regularly consumed foods such as, tortillas, bean, rice, and various fruits and vegetables. However, while many participants still ate many of the same traditional foods, they reported that they often ate cheaper and

more processed alternatives. Many participants noted that they have consumed a wider variety of foods since living in the United States. When asked how overall food preferences have changed, Participant 7 stated, “Definitely my palate. I think that after discovering the huge variety of foods that are in this country, I am always curious to try something new”. Participant 7 also added that he enjoys eating different types of foods such as Korean and Vietnamese takeout. Most participants shared that they have consumed a greater amount of processed and fast foods since living in the United States. There was a general consensus that convenience foods were generally cheaper and easier to purchase throughout the busy workday. Furthermore, many participants expressed that their overall meal structure has changed since living in the United States. Participant 6 noted that due to a busier work schedule, time constraints often alter the composition and timing of meals. Due to having to work at 5 o'clock in the morning, she often ate smaller meals during the day and a larger meal at night. Furthermore, busy schedules associated with school and extracurricular activities sometimes prevented her family from eating together as a whole.

Nutrition knowledge

The majority of participants reported that they learned their knowledge pertaining to nutrition and cooking from their mother. Most participants reported that they were taught traditional recipes and cooking recipes from childhood. Participant 1 noted that her mother specifically taught her the importance of “having a plate with color” and “having fresh fruits and vegetables to cook a homemade meal”. Following this, several participants noted that their family values healthy eating and consuming an overall nutritious diet. For most participants, mealtime was a shared family experience. Some participants alluded to the notion that there were designated household roles in regard to mealtime, especially prior to the acculturation process. Participant 7 stated, “El Salvador is very traditional. The mom makes the food. My job was to get wood for the stove. Grandpa’s job was to farm and grow food. Our job was to pick it. We all had a purpose in the household”. Overall, the majority of participants’ nutritional knowledge stems from their upbringing.

Comparisons to the comprehensive literature review

Overall, there were many consistencies between the literature review and data collected from the semi-structured interviews. As seen in Table 2, there was frequent consumption of fresh fruits and vegetables and traditional foods such as, corn products, beans, and rice among participants. When looking at the traditional diets of Mexico and El Salvador, there is a strong emphasis on fresh food consumption and the preparation of homemade meals. Although the traditional Mexican diet is characterized by consumption of a wide variety of fresh foods, it is also high in saturated fat as it utilizes frying as a predominant cooking method. Additionally, higher-fat proteins such as, pork, poultry, chorizo, and eggs are frequently consumed. In regard to the dietary acculturation process in the US, increased consumption of meat, saturated fats, sugar-sweetened beverages, and added fats is often seen (Van Hook, et. al, 2018). For the participants interviewed, many of these traditional food consumption patterns and acculturation changes were consistent with the

information seen within the literature. While the majority of participants still preferred to consume traditional dishes, social and environmental factors prevented them from doing so. Time constraints associated with a busy work and family schedule made it significantly more difficult for participants to consistently prepare their own meals. As a result, many participants increased their reliance on convenience and processed foods that are high in saturated fats, added sugars, and preservatives. Although most participants increased their consumption of processed foods, the majority of participants still consumed fresh fruits and vegetables at home. Following this, the traditional diet of El Salvador is characterized by fresh fruit and vegetable consumption, as well as the consumption of lean proteins such as, fish poultry, and beans. With acculturation changes, there is often an increase in fast food consumption, as well as sugar-sweetened beverage consumption. Moreover, there is a substantial decrease in access to traditional Salvadoran foods seen within the acculturation process (Fuster & Colón-Ramos, 2018). For the Salvadoran participant interviewed, these themes were very fairly consistent. After moving from El Salvador, this participant reported an increase in fast food consumption, as well as an increase in consumption of processed and sugary foods. During the interview, the participant mentioned how many of these convenience foods were significantly cheaper than healthier alternatives and provided a quick and tasty meal. Furthermore, this participant noted the lack of access to traditional foods due to financial and geographic barriers. Access to traditional Salvadoran spices and ingredients is very limited, which then restricts the overall satisfaction and quality of the eating experience. On the whole, the dietary behaviors of most participants remained mostly unchanged. However, the increased consumption of convenience and processed foods, as well as the limited availability of traditional foods has affected overall fulfillment associated with mealtime.

Discussion

Summary of results

Overall, participants in the study discussed that they did not alter their dietary habits while living in the United States. Participants maintained traditional eating patterns, such as the frequent consumption of fruits, vegetables, and corn products. Additionally, participants still aimed to eat a healthier diet with minimal processed foods and sugar-sweetened beverages. However, key themes from the data highlight that overall diet quality was reduced along with increased consumption of processed foods and beverages. Most participants expressed their dissatisfaction with the overall quality of fresh foods sold within the United States. Particularly, participants were dissatisfied with the quality of produce, as well as the freshness of meat products. Participants emphasized the lack of freshness and flavor, when comparing these food items to those from their home country. Most participants revealed that they shopped at supermarkets, such as Kroger, Walmart, and Meijer. While participants found most of the foods they needed, they were not satisfied with the variety and quality of foods offered. Some participants stated that they did shopped at local Hispanic markets but no frequently due to distance and cost of food.

Among participants, there was a strong preference for eating fresh, home-cooked meals in a sit-down setting. However, many individuals revealed that busy school and work schedules made this significantly more difficult. Participants found it difficult to eat traditionally during the daytime. Participants would typically pack a snack or lunch and then consume a traditional, home-cooked meal for dinner. Following this, children who consumed school lunches were typically dissatisfied with their meals and would often fill up on the other snacks and convenience foods offered at lunch time. Furthermore, the high prevalence of processed foods offered in the school cafeteria influenced the children's dietary preferences at home. Many of the participants' children wanted to eat their same school convenience foods at home. In regard to nutritional knowledge, most participants revealed that they learned their nutritional knowledge from their mothers and other relatives. Their mothers taught them traditional cooking methods and recipes, along with the importance of consuming fresh and healthy foods. Most participants agreed that the consumption of processed foods had negative health outcomes.

Health and diet connection

Overall, Latinx individuals are disproportionately affected by a multitude of nutritional diseases, particularly obesity and diabetes. These health inequalities occur mainly as a result of the difficulties created by their socioeconomic status, cultural background, employment status, and foreign-born or undocumented status (Velasco-Mondragon, et. al, 2016). The chronic stress associated with these social determinants can often negatively impact nutritional patterns. As stated in the comprehensive literature review, a traditional Latinx diet is very high in fiber and offers several health benefits. When examining our data, there are several consistencies with the literature. First, nearly all participants emphasized the importance of eating fresh fruits and vegetables. There was a strong preference for traditional, whole foods, such as beans, rice, poultry, tomatoes, and corn-based products. Furthermore, there was a strong desire to eat healthy and limit the consumption of processed foods and sugar-sweetened beverages. In Latinx culture, the consumption of fresh and locally-sourced foods is greatly valued. The consumption of foods that are native to Mexico and Central America are very prominent in the traditional Latinx diet. Although traditional Latinx dietary patterns have been associated with positive health outcomes, research has indicated that during the acculturation process and the transition to a more Westernized diet, many of the nutritional benefits of a typical Latinx diet are compromised (Velasco- Mondragon, et. al, 2016). Specifically, there is an increased consumption of processed foods that are high in saturated fats, added sugars, and preservatives. The limited availability of fresh produce, combined with higher food prices, have made it notably more difficult to obtain fresh and affordable traditional foods in the United States.

In the semi-structured interviews, several participants expressed that they increased their consumption of these foods upon moving to the United States. With the fast-paced work schedule associated with American culture, there is minimal time in the day for preparing a healthy, traditional Latinx meal. Although the literature indicates that traditional Latinx culture places a strong value on "sit-down" family meals and the various social

components that accompany them, meal time is often abbreviated with the transition to Western culture. The fast-paced and work-oriented culture of the United States prevents individuals from following a traditional Latinx meal schedule (Cuy Castellanos, 2014). Many participants revealed that they would rely on packed lunches or delay their meal time due to work-related time constraints. However, with a busy lifestyle and skewed meal schedule, there was increased reliance on convenience foods. One participant particularly noted that convenience foods are significantly cheaper than fresher and healthier alternatives. The strong presence of convenience foods within American society has contributed to increased consumption. For example, school lunches often consist of foods that are high in sugar and saturated fats. Participants explicitly noted that the exposure to such foods at school made their children want to consume that at home. However, while there was some increased consumption of processed foods, all participants still maintained a strong preference for traditional and healthy cooking.

On the whole, the majority of participants expressed their dissatisfaction with the quality with the “freshness” of foods sold within the United States. Specifically, participants were dissatisfied with the high amount of canned and frozen foods offered within American supermarkets. Many participants also indicated that it was fairly difficult to obtain traditional Mexican or Salvadorian ingredients due to price or geographic location. While there were local traditional Latinx food stores, they were typically expensive or at least 30 minutes away. Consumption of traditional foods was limited due to financial and geographic constraints. As seen in the literature, the inability to access traditional foods has led to increased dissatisfaction with the eating experience among Latinx individuals.

When asked about food consumption patterns in their home countries, most participants responded that they would typically only eat traditional, fresh foods that were locally available. Family roles played a predominant role in meal time as food was often grown and harvested at the family home. Traditionally, the mother would cook, while the men and children would work to farm and gather the food. As a result, mealtime was valued as a shared family experience and bonding opportunity. Food patterns in participants’ home countries were fairly consistent with the strong desire to eat traditional, home-cooked meals as seen in the literature (Fuster & Colón-Ramos, 2018).

Implications

Although there was a small sample size used for this study, the results can still be utilized to inform local non-profit organizations on specific dietary-related issues regarding the local Dayton LatinX population. The data provided insight on dietary preferences, nutrition-related acculturation changes, nutritional knowledge, and food accessibility. The data highlighted the strong preference for fresh fruits and vegetables among the Latinx population. Specifically, there was a strong preference for broccoli, spinach, pumpkin, tomatoes, cabbage, green beans, and snow peas. By growing and distributing even some of these foods, local community organizations may attract more Latinx participants. Additionally, the data revealed that there is particularly low involvement of the Latinx population with local farmers market initiatives. Many participants were unaware that such events existed. With this information, community organizations can

develop more effective strategies to attract residents. For example, it would be advantageous for community organizations to distribute flyers that are also written in Spanish. This would help to close any cultural gaps and increase Latinx participation. These organizations can also work to incorporate more of the aforementioned fruits and vegetables within their markets and nutritional programming. This information will help guide Mission of Mary and East End Community Services to adapt their programming to better serve the needs of the local Latinx community.

Specific Culturally-Appropriate Interventions:

1. Adaptation of farmers' markets to include a variety of foods that are strongly preferred by the Latinx community. Specifically, foods such as: broccoli, spinach, pumpkin, tomatoes, cabbage, green beans, and snow peas.
2. Increased Latinx outreach through language appropriate flyers, social media posts, and advertisements.
3. Increased implementation of culturally-tailored nutrition programming informed by the information in this study.

Ultimately, the end goal of this research is to increase Latinx participation within the East Dayton community programs thereby increasing access to food and health-related education. By having Latinx citizens share their knowledge and individualized assets surrounding specific agriculture and food skillsets with the East Dayton community, they would not only expose others to new and diverse nutritional opportunities, but they would potentially allow themselves to have increased access to traditional nutritional resources. Through implementing specific community development programs targeted at the local Latinx population, East End Community Center and Mission of Mary Farms hope to encourage Latinx involvement within the East Dayton community. Predominantly, the main goal is to motivate Latinx citizens to utilize their expertise in traditional Latinx cooking and agricultural practices by sharing it with the surrounding East Dayton neighborhood through these specific community development programs. The results of these specific community programs would be two-fold as they would expose East Dayton community members to innovative and diverse nutrition practices, while simultaneously aiding Latinx citizens in pursuing a healthy and nutritious diet by employing their cultural assets.

Overall, a multitude of social, behavioral, environmental and societal factors combine to play a major role in the dietary acculturation process of an individual. When designing interventions to confront the health disparities induced by the acculturation process, it is vital to take into consideration the diverse cultural factors that affect one's dietary behaviors. An intervention will only reduce health disparities and disease within the Latinx population if it targets multiple influencing factors.

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