LATINA MOTHERS PERCEPTIONS ON PHYSICAL ACTIVITY AND DIET:
IMPLICATION FOR FUTURE INTERVENTIONS

A Thesis submitted in partial fulfillment of the requirements
For the degree of Masters of Science in Kinesiology.

By

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Who of you by worrying can add a single hour to his life? (Matthew 6:27 NIV)

To Friends and Family who challenged, and shared joyful times
To my wife who loves and supports me
To my parents who have sacrificed so much
To My Lord and Savior Jesus Christ who puts everything in the proper perspective
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ABSTRACT

LATINA MOTHERS PERCEPTIONS ON PHYSICAL ACTIVITY AND DIET:
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By

Michael Jara

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**Purpose:** To gather information from Latina mothers regarding physical activity and diet to be used on the design of future intervention programs for the Latino population.

**Introduction:** Obesity is caused by the interplay of genetics, behavior, the environment, physical activity, and diet (Anderson & Butcher, 2006; Centers for Disease Control and Prevention (CDC), 2009). The total costs from obesity totaled $117 billion (Cleveland Clinic, 2011). A tailored approach to weight loss is suggested by literature otherwise impacts will be lost (Forster-Scott, 2007) and effects diluted (Clark, Bunik, & Johnson, 2010). Different perceptions of weight exists between Caucasians, and Asians compared to minority groups in Australia, with Caucasians and Asians perceiving themselves as too fat (O'Dea, 2008). These cultural differences exists in the United States as well, with certain cultures finding fuller figure women desireable (Forster-Scott, 2007). Parents play an important role because between the ages of 0-11 children spent most of their free time with their parents (Brustad, 1992; Greendorfer, 1992). A study in France found that mothers influenced their child’s participation in physical activity (Bois, Sarrazin,
Brustad, Trouilloud, & Cury, 2005). Adults should help children have a good start because risks for obesity begin as early as the pregnancy stage (General, 2010).

**Methods:** Participants included Latina mothers who were at least 18 years old, with the ability to speak, read, and write in English, and with at least one child 0-11 years old. A total of eight participants were interviewed regarding physical activity and diet, and twenty-seven participants, recruited from local elementary schools, filled out questionnaires that contained similar questions to the interview questions to determine if interview responses applied to a larger sample size. Interview questions were transcribed and analyzed using NVivo 9 qualitative software leading to theme development. Questionnaire responses were analyzed using Excel.

**Results:** Five themes were observed from participant interviews: Education and Family Togetherness, Nutrition as the Cause of Poor Health in the Latino Community, Solutions Need an Emphasis on Nutrition Education, and The Belief of Influence.

**Discussion:** The results support interventions that are multifaceted; containing a nutrition, behavioral, and physical activity component that is tailored to the Latino population and addresses the barriers mentioned by participants and includes information and activities suggested and/or enjoyed by participants.
INTRODUCTION

Very simply, weight gain occurs, when energy intake, in the form of calories consumed, exceeds energy expenditure through resting metabolic rate and/or physical activity (Medicine, 2006). Researchers who are interested in studying obesity, should be mindful of the interplay of various factors, such as genetics, behavior, and the environment (Anderson & Butcher, 2006; Centers for Disease Control and Prevention (CDC), 2009b). The most widely used screening tool for obesity is body mass index (BMI), calculated by dividing an individual’s weight in kilograms by their height in meters squared (kg/m²). An individual, having a BMI greater than 25 but less than 30 is considered overweight, obese if greater than 30, and morbidly obese if greater than 40. Because of the ever changing states of children and adolescents, age and gender specific percentile charts are used to screen for obesity. Children and adolescents are classified overweight if they fall between the 85th and 95th percentile, and obese if above the 95th percentile.

One-third of the U.S. adult population is obese, and two-thirds overweight (Cleveland Clinic, 2011). As for children and adolescents, 17.5% age 6 to 11 years, and 17% age 12 to 19 years were overweight between 2001 and 2004. This is of concern, because children and adolescents that are overweight or obese, are more likely to be overweight or obese in adulthood. Obesity is linked to a myriad of health problems, such as Type II Diabetes, colon cancer, cardiovascular disease, hypertension, orthopedic problems, and psychological disorders like low-self esteem and depression (Centers for Disease Control and Prevention (CDC), October 20, 2009). The total health cost from
obesity totaled $117 billion, with $61 billion attributed to direct cost, and $56 billion attributed to indirect cost (Cleveland Clinic, 2011).

Addressing the obesity epidemic is a priority, which is evident by the acts, initiatives, and reforms that have recently been moved into action. The 2010 health reform played a role in combating obesity by providing $500 million dollars for prevention and wellness grants. Furthermore, the initial amount of the reform will increase to $15 billion dollars during the next 10 years (Arvantes, 2010). In December, 2010 President Obama also signed the Child Nutrition Act, which reinstated a $4.5 billion measure to provide free school meals for the needy and assure that food provided in schools through vending machines or the cafeteria meet nutritional standards (Muskal, 2010) and impacting children’s weight status. Similarly, the ‘Lets Move’ initiative, made famous by the First Lady, Michelle Obama, aims to end childhood obesity in one generation. ‘Lets Move’ is a four pronged approach that aims to get parents more informed about nutrition and exercise, improving the quality of foods in schools, making healthy foods more affordable and accessible for families, and focusing more on physical education. Every front; the government, the schools, and the family, play a role in combating childhood obesity. Michelle Obama has been working closely with mayors and governors, to create a tailored approach to face the unique challenges that each community faces (Arvantes, 2010; Ferran, 2010).

Literature highlights the importance of a tailored approach to weight loss because it is important to understand the norms and ideals of a specific population, otherwise, the impact of such programs will be lost (Forster-Scott, 2007) and their effects diluted (Clark, Bunik, & Johnson, 2010). For example, a study in Australia found significant
differences between how Caucasians perceive their weight compared to minorities (O'Dea, 2008). Minority women, here in the United States, shared similar perceptions as their Australian counterparts (Forster-Scott, 2007). The use of alternative healers, called Curanderos, is normal practice, to Hispanics in the Southwest (Clark et al., 2010). These are all examples of cultural and/or class differences, that differ from the mainstream. Understanding differences can better focus efforts to combat obesity.

Obesity affects all ages, religions, and race, regardless of socioeconomic and education level. However, there is a correlation between socioeconomic status and the prevalence of obesity (O'Dea, 2008). Second to only Alaskan Natives and American Indians, Hispanics had the second highest prevalence of obesity (Centers for Disease Control and Prevention (CDC), 2009c). Hispanics comprise 32.4% of the California population and the city of Los Angeles is 46.5% Hispanic (U.S. Census Bureau, 2009).

Before adolescence children spend most of their free time in the family context, a time parents are influential in the socialization of their children. (Brustad, 1992; Greendorfer, 1992). Decisions about food, activity, and sedentary lifestyles begin in the home. Adults, particularly parents and caregivers should give children a model in living a healthy lifestyle (U.S. Department of Health and Human Services, 2010). The Surgeon General’s Vision for a Healthy and Fit Nation suggested that adults help children have a good start because risks for obesity begin as early as the pregnancy stage. A study in France, examined the importance of parents perceptions on their child’s self-efficacy (Bois, Sarrazin, Brustad, Trouilloud, & Cury, 2005). Furthermore, numerous research have gathered parents perceptions as it related to their child’s weight (Carnell, Edwards, Croker, Boniface, & Wardle, 2005; Hudson, Cherry, Ratcliffe, & McClellan, 2009), and
the role they think schools should play in their child’s health (Murnan, Price, Telljohann, Dake, & Boardley, 2006).
LITERATURE REVIEW

Etiology of Obesity

An individual becomes obese by consuming more calories than they expend. More accurately, however, obesity is a multifaceted problem related to both diet and physical activity (Turner, Thomas, Wagner, & Moseley, 2008) and is the interaction of various factors such as genetics, behavior, and the environment, that all contribute to obesity (CDC, 2009).

Trends and potential causes of childhood obesity were examined (Anderson & Butcher, 2006), and they reviewed energy balance, and the detriments to energy balance. Detriments to energy balance occurred because of changes in the food market, the built environment; making jobs more sedentary because of improvements in technology, and increased time/mileage spent in the automobile by both parents and their children due to urban sprawl, school and childcare, and the role of parents. Anderson and Butcher concluded that childhood obesity rose from 1980 and into the 1990’s. During this time period, convenience seemed to have been an influential factor due to the increased working hours of parents. As a result, calorie-dense convenience foods and pre-prepared foods, including soda pop were consumed by children. These calorie dense foods: supersized fast foods, energy-dense snack foods, ready-made prepared foods, and sweetened beverages, entered the American diet in the last decades of the 20th century, which explains much of the obesity crisis in America today (Paarlberg, 2010). Take for example, that meals at fast food restaurants exceed 1000 calories, and that an ounce of potato chips contain 155 calories, and that the average American takes in 450 calories from beverages alone (Paarlberg, 2010). Consumption of these calorie-dense foods was exacerbated by their availability in schools and media advertisements that were aimed
towards children. Lastly, children spent more time in sedentary activity such as watching television, and playing video games. It is important to note that not one factor is to blame, rather a combination of these factors interacting together (Anderson & Butcher, 2006).

**Culture**

Obesity affects all ages, religions, race and ethnicities, regardless of education and socioeconomic level (SES). There is however, a correlation between prevalence and socioeconomics. A study in Australia found that obesity among school-aged children was affected by ethnic and cultural factors, and when further analyzed, social class effect as well, with children in the lower SES group having a higher prevalence of obesity than children in the higher SES group (O’Dea, 2008). In the United States, American Indians/Alaskan Natives had the highest rates of obesity at 21.2 percent, followed by Hispanics at 18.5 percent.

When undertaking the task of designing programs for a specific population, it is worthwhile to understand the norms and ideals of that population, otherwise, impact will be lost (Forster-Scott, 2007) and effects diluted (Clark et al., 2010). O’Dea’s study, conducted in Australia, found that obese girls, aged 12 years or older exhibited varying perceptions of body image based on culture. Anglo/Caucasians and Asians had the highest percentages of perceiving themselves as too fat, at 83.7 percent and 100 percent respectively. The percentage of minority girls perceiving themselves as too fat: Aboriginal (72.7 percent), southern European (70.6 percent), Pacific Islander (73.3 percent), and Middle Eastern (40 percent). Furthermore, 60 percent of Middle Eastern girls perceived their weight as about right. The differences in perceptions among ethnic groups was statistically significant, $p < 0.008$. 


Stateside, (Forster-Scott, 2007) writes of a similar phenomenon occurring in women of various ethnic groups. Her article highlights, The “Bootylicious”, The “Weave to Achieve”, and The “I’m Not Fat, I’m Big-Boned” Factors. The need to exercise and diet may not be motivated by physical appearance alone because in certain cultures it is ideal to have larger than average derrieres, i.e. The “Bootylicious” Factor. Some women of color, spend a lot of time and money, to achieve a look more in line with a European perception of beauty, such as straight hair. As a result, certain exercises and vigorous activities are avoided to prevent hair from returning to its natural state (going back), an example of The “Weave to Achieve” Factor; style supercedes the importance of physical activity. Lastly, in certain minority groups, when a girl is overweight, she may be described as “Big-Boned”, which does not carry a negative connotation of bad health. Though, the “Bootylicious”, and “The I’m Not Fat, I’m Big Boned” Factors are cultural preferences, and good for self-esteem, emotional state, and sensuality, it prevents the realization of the risks of being overweight and obese, and making the necessary changes to physical activity and diet.

Clark et al., (2010) examined a cultural norm unique to Mexicans and Mexican Americans in the Southwest United States; the hiring of alternative healers called Curanderos, to supplement biomedical healthcare. Clark interviewed Curanderos regarding their beliefs as to why overweight was rampant in the Latino population. The five themes that emerged from these interviews were: A calling and an ancestral gift, health aligned with an idealized “natural world”, family relationships and “mi poor mijito syndrome”, obesity and the social marginalization of Latinos, and the cultural compatibility of programs.
In the second theme, *health aligned with an idealized “natural world”*, Curandero’s stated that moving away from natural foods to processed modern foods have contributed to obesity. In the, *family relationships and “mi poor mijito syndrome”*, Curanderos said that caregivers use food to reinforce, indulge, or bribe children which teaches children to have a bad relationship with food. In the *obesity and social marginalization of Latinos*, Curandero’s believed that obesity was a result of poverty, domestic violence, and depression that must first be addressed before physical activity and healthy eating can be sustained. If the more serious problems are not addressed than interventions “would be like peeing into an ocean” because the effect would be diluted. However, a few Curandero’s stated that if interventions towards the Latino population are to be effective they must be designed to meet the needs of the Latino population. In the last theme, *cultural compatibility of programs*, Curandero’s suggested using promotoras (lay health workers), or starting interventions when women are pregnant because that is when they are expecting to change. Methods must be engaging and resonate with the experiences and preferences of Latino culture such as storytelling.

**Perceptions**

A study in France examined perceptions in regards to physical activity (PA) and perceived competence. Bois et al. (2005) recruited 152 intact families defined as mother, father, and child. Only one child was allowed to participate and they had to be able to participate in physical activity (PA). Children ranged from 9-11 years of age and consisted of 84 girls and 68 boys. Families were mostly Caucasian-French, middle-class families. The factors measured were the child’s perceived physical competence, parental perceptions regarding their child’s PA competence, and parents PA. Child’s perceived
physical competence was measured using a French version of Harter’s scale (1985) in which a child could choose 1 (low competence) to 4 (high competence). The child’s PA duration was gathered by two means; parents’ reports and interviewer administered recall from children. Parents’ perceptions regarding their child’s PA competence was accumulated using a 5 point Likert-type scale with 1 (not good) and 5 (very good). Finally, parents’ PA was gathered by recall of their own PA. Results indicated that the relationship between mothers’ PA and children’s PA was significant. Fathers PA however, did not predict their child’s PA after controlling for age and sex. Mother’s, but not father’s perceptions of their child’s ability, significantly predicted the child’s perception of competence. Eventually, children’s perceived competence predicted their PA level.

Murnan et al. (2006) conducted a study examining the perceptions of parents regarding what role they think schools should play in combating overweight. Parents’ perceptions were obtained using a 59 item questionnaire derived from the three components of the CDC’s School Health Index: health education, physical education, and nutrition/food services. A majority of parents were in agreement with schools providing health (95.7%) and physical education (100%). However, one item that 30.3% of parents did not find important was being informed of their child’s weight and height. Parents who described their child as overweight showed lower support for health education criteria that emphasized healthy eating, and physical activity and school support that aimed at preventing childhood obesity.

Both Carnell et al. (2005) and Hudson et al. (2009) conducted studies on parents perceptions of their child’s weight. In Carnell’s study 1.9% of parents with overweight
children and 17.1% of parents with obese children classified their child as overweight. Misclassification of children’s weight occurred in Hudson’s study as well, in which 1/3 of children were obese but with only 13.5 percent of the parents classifying their children as obese. Parents misclassifying their children was statistically significant, $p < .001$. Mothers, fathers, and caretakers were equally likely to misclassify their children as well ($p = .39$).

**Interventions**

Interventions for the Latino population have involved customizing, to make them more culturally relevant. Interventions have also focused on the community and the family. Methods have been comprehensive, including physical activity, nutrition, behavior, and problem solving strategies. Results have contributed to the understanding of specific interventions developed for the Latino community.

The Viva Vien study (Barrera, Toobert, Strycker, & Osuna, 2012) focused on the effects of acculturation on a diabetes program adapted for Latinas. A number of assessment tools were used to measure an array of baseline measurements for this study. Baseline (Barrera et al., 2012) scores suggested that having a Latina orientation correlated with consuming a higher percentage of calories from saturated fat, $p = .001$, and lower participation in physical activity, $p < .053$. Individuals identified as having an Anglo orientation were positively correlated with exercise support, $p < .01$, and participants born in the U.S. consumed slightly more saturated fat, $p < .019$ than foreign born participants. Identical measurements were taken at the end of the intervention. The results indicated that Latinas with Anglo Orientation showed positive improvements to problem solving and improvements in dietary support services, but negative
improvements in physical activity. Those with Latina orientation showed a negative relation with dietary support services. Those with Anglo orientation may have used their proficiency in the English language to improve problem solving and use of support services. This study was a reminder as to the complexity of acculturation because at baseline those with Latina orientation had lower saturated fat intake but participated in less physical activity (Barrera et al., 2012).

The following interventions focused on implementing interventions to include family members. The Horton Hawks Stay Healthy (HHSH) was a 10 week, culturally tailored diabetes program that provided classes to both adults and children, covering the same topic but at age appropriate levels (Coleman et al., 2010). The Behavior Opportunities Uniting Nutrition Counseling and Exercise (BOUNCE) program was a 12-week healthy lifestyle program for Latina mother-daughter pairs (Olvera et al., 2008).

The results from the HHSH intervention resulted in positive changes related to behavior, e.g. parents were more likely to believe that their child’s weight could lead to chronic illness, $p < .001$, parents also reported engaging in more leisure-time physical activity, $p < .01$, and more parents reported consuming more vegetables $p = .01$ (Coleman et al., 2010). Although there were no significant changes in BMI for both parents and children, a decrease in the number of parents in the obese BMI category from 51% at baseline to 45% at the end of the intervention was observed (Coleman et al., 2010). Interviews were also conducted from mothers who regularly attended classes, and those who did not regularly attend classes. Women who regularly attended classes felt empowered to change their family’s lifestyle from the information they received during the classes. In both groups, women reported making positive changes e.g., cooking with
more vegetables, eating less meat, exercising more, and drinking more water. Women who regularly attended classes also reported that their children served as reminders of healthier choices e.g. portion sizes, sugary drinks, and junk food. Those who did not regularly attend classes reported unforeseen life events, and life schedules as reasons for not attending regularly. They also stated that more cooking demonstrations could have served as a motivator to attend (Coleman et al., 2010).

The BOUNCE program took a comprehensive approach which consisted initially of a 12-month formative assessment consisting of a panel of experts from multiple disciplines, and revised by experts from Latino culture and a member of the Latino community; to translate education materials into Spanish. The research team presented measurements related to demographic, acculturation, and process evaluation. Results were presented from the perspective of the instructors, daughters, and mothers.

Instructors reported that cooking and dancing was most enjoyable for girls, and that inconsistent work schedules, religious beliefs, and child tutoring were barriers for mothers. They also believed that lessons on food labeling, the conversion of sugar to fat, and the value of skim milk versus whole milk were difficult for parents to follow (Olvera et al., 2008).

Daughters in both the experimental and control groups reported cooking, food tasting, along with journaling about personal thoughts and events; discussions about diverse body sizes, the role of the media and peers in shaping perceptions about body weight enjoyable and helpful. Both groups also reported dance as their favorite physical activity. Some of the changes that daughters adopted at home included cooking healthier,
consuming less sugar, drinking more water, consuming smaller portion sizes, and joining cheerleading classes offered at school (Olvera et al., 2008).

Mothers found nutrition education the most helpful, which included education in grocery shopping, food tasting, food portion sizes, food labels, and the reduction of dietary fat and sugars. Mothers also enjoyed counseling sessions that taught ways of increasing the self-esteem of their daughters and themselves. Similar to the daughters, the mothers’ favorite physical activity was dancing, in the form of samba and salsa. The adaptations mothers made at home were drinking water more often in place of juices and sodas, and drinking more skim or 1% instead of whole milk. As far as mother-daughter bonding, daughters learned a lot about their mothers, and were surprised at their mother’s playing abilities in basketball. Mother-daughter pairs rated the program highly and recommended that the sessions be longer, and include more dance and sports activities (Olvera et al., 2008).

Another comprehensive and multi-layer study was, Familias Sanas y Activas (Ayala, 2011) which examined the effects of a promoter based intervention for the Latino population, in south San Diego County. Results suggest that those remaining in the end of the study were most likely foreign born p<.05 and unemployed. Participants reported an increased usage of parks and recreation centers, as well as a reduction in depressed moods and barriers towards physical activity. Participants’ perception of community support increased as well. Changes in fitness measurements were a decrease in systolic blood pressure and waist circumference, and an increase in aerobic fitness and flexibility. There were no changes in diastolic blood pressure and BMI. At the time of completion,
this study was the first to show improvements in aerobic fitness for Latinos in a community trial (Ayala, 2011).
PURPOSE

To gather information from Latina mothers regarding physical activity and diet that will be used in the design of future intervention programs for the Latino population.
METHODS

Interview Participants

A total of eight participants were recruited for the interview portion of the study. Participants were contacted directly, through word of mouth, from businesses, churches, and the Center of Achievement at California State University, Northridge. All participants lived in the San Fernando Valley area. Two participants were employees of a nursing home in Northridge, California, specializing in care for individuals suffering from traumatic brain injury. Two participants were clients from the Center of Achievement, a facility specializing in adapted physical activity for people living with a variety of physical disabilities, located on the campus of California State University, Northridge. Two participants were church members of two separate churches, one in Van Nuys, and the other in Burbank. One participant was referred by a friend, and one participant was a personal friend. The inclusion criteria required participants to be Latina mothers at least 18 years of age, with children 0-11 years old, and having the ability to speak, read, and write in English.

Names of interview participants are fictional. No demographic information was received from Jennifer so data from her was not be included in this section. Four of the mothers; Yolanda, Beatriz, Jessica, and Carmen’s, primary language was Spanish, all of them except Beatriz have lived in the United States for at least twenty years, Beatriz, less than nine years. Their levels of education varied, Yolanda’s highest level of education was high school and Beatriz, grammar school. Both were full-time service workers at a nursing home facility. Jessica was currently working on her bachelor’s degree and worked part-time. Carmen was self-employed and had the highest level of education from
the interview group, with a Bachelor’s degree. Carmen was also the oldest (41-55) years old, of the mothers from the interview group, while Yolanda and Yvonne were the youngest (18-25) years old. Most of the mothers were between (26-40) years of age.

Amy, Karla, and Yvonne have lived in the United States their entire lives and spoke English as a primary language. Amy and Karla both had some college education. Yvonne’s highest level of education was high school but at the time of interview, she was currently working to get into the Police Academy.

Beatriz was separated and had three children, the most children of any of the other mothers in the interview group, and lived in a household of five or more people. Yvonne and Carmen also lived in a household of five or more people but Yvonne was single, with one child, and Carmen was married with two children. Yolanda was the only other mother who was married, she had a household of four with two children. Amy (divorced), Karla (single), and Jessica (single) all had one child, both Amy and Karla lived in a household of three while Jessica lived in the smallest sized household of two.

**Questionnaire Sample Group**

For the questionnaire portion of the study, it was first necessary to contact the principals of Charter schools. Charter schools are an alternative to public schools, they receive waivers from public school districts, on the assumption that they will perform better or on par, academically, to comparable public schools. Charter schools were also more accessible, they did not have the same restrictions as the school district, in terms of research at their schools. Principal contact information was attained through an internet search which produced a roster of Charter schools in the school district for the 2011-2012 school year. An initial email message was sent to principals of 28 charter schools in the
San Fernando Valley. Of the 28 schools only four agreed to distribute the questionnaires to mothers of students attending their schools. Further correspondence occurred with principals of the willing schools to further discuss the study and the logistics of survey distribution and collection. The schools that agreed to participate will be identified with fictitious names. They were Northwest Charter School in Chatsworth, Central Charter School in Van Nuys, North Pointe Charter in Northridge, and Southwest Multicultural in Canoga Park. All of these schools are located in the San Fernando Valley. The inclusion criteria was identical to the interview portion of this study; mothers 18 years old or older, with children 0-11 years old attending the elementary school recruited for the study, and with the ability to speak, read, and write in English.

In total, approximately 1100 questionnaires were distributed to the four participating schools mentioned above. 73 questionnaires were returned, and only 27 met the inclusion criteria for this study. Of the 27 questionnaires that were used, 24 came from mothers at the Multicultural Learning Center in Canoga Park.

Table 1 presents descriptives of the Questionnaire Sample Group. For example, a majority (55%) of the mothers from the Elementary School Group were between 26-40 years of age. English was the primary language for a majority of the mothers in the Elementary School Group (59%). Mothers in this group also attained higher levels of education with 26% having a college degree, 35% with a Masters degree, and 4% with a doctorate.
Procedure

Interview Participants

For the interview portion of the study, an agreed upon date, time, and location was scheduled with participants interested in partaking in the study. Participants decided the date, time, and location of interview to facilitate maximum comfort, and to avoid any inconvenience. Interviews took place in a variety of locations; a participant’s home, a coffee shop, a church office, their place of employment, on the researcher’s university campus, and during a variety of times; noon, afternoon, and late evening. All interviews were one-on-one, and occurred in quiet rooms where privacy was ensured, and distractions minimized. The coffee shop interview was the only exception to this.

Prior to the interview, participants signed an informed consent (Appendix D), a bill of rights (Appendix F), and were given an opportunity to ask questions pertaining to the study. Each participant was then given a demographic survey (Appendix B) to complete. Upon completion of the survey, the interview process began, led by questions previously established to guide the interview process (Appendix A). The durations of the interviews varied, with 15 minutes being the shortest, and 55 minutes being the longest. This is due to the differences in each participants responses, and researcher experience in each subsequent interview.

Questionnaire Sample Group

Questionnaires (Appendix C) were delivered to willing Charter schools mentioned above in the previous section. Arrival at each school was always followed by a brief discussion with the principal, to further explain the research, and logistics of survey distribution and collection. Distribution was accomplished by the staff of the main
office of each school, who devised a system to distribute the questionnaires to the classroom teachers, who subsequently distributed them to their students, to take home to their mothers. Mothers had a week to complete and return the surveys to school via their children. Collection occurred essentially in the reverse process of distribution. Children either dropped off the questionnaires in the main office, or returned them to their classroom teachers, who then dropped them off in the main office to be collected by the researcher at an agreed upon date.

The questionnaire packet included all of the mandatory documents that research participants are required to read and sign e.g. informed consent, and bill of rights. Also, the same demographic questionnaire that the interview group completed, and a questionnaire derived from the interview questions administered to the interview group above. A sheet in the questionnaire packet directed the questionnaire sample group to read the inform consent, and bill of rights and sign it. It also provided a due date for the questionnaire packets to be returned to their child’s school.

**Instruments**

**Interview Participants**

The interview portion required an Olympus WS-600S digital voice recorder to record the interviews, a demographic questionnaire for descriptive statistics, and predetermined interview questions to guide the interview. The demographic questionnaire was developed by browsing multiple demographic questionnaires online and choosing the information that were believed to provide general descriptive statistics such as age, education, primary language, employment and marital status, and number of children and people in household. The interview questions were developed to elicit responses
pertaining to physical activity and diet. Questions were refined based upon the review from a professor in the Educational Psychology and Counseling Department at California State University, Northridge, because of her previous experience with qualitative research for the Latino population. Based upon her suggestions questions were revised to be more open-ended, because in her words, “open-ended questions paint a vivid picture and reads very well in a qualitative research.”

**Questionnaire Sample Group**

As for the questionnaires distributed to the participating schools, the first part contained the same demographic questions as the ones completed by the interview participants. The second part of the questionnaire contained questions derived from the guided interview questions, and contained a combination of fill-ins and short answers.

**Analysis**

**Interview Participants**

All interviews were transcribed verbatim using NVivo 9 Qualitative Software. Open-memo coding was performed on each of the participants’ transcribed interviews. Open-memo coding was followed by selective coding and lastly triangulation. Open-memo coding serves to capture and facilitate analytical thinking about the data (Maxwell, 2005). Glaser (1978) defines memoing as “theorizing write up of ideas about codes and their relationships as they strike the analyst while coding…it can be a sentence, a paragraph or a few pages…it exhausts the analyst’s momentary ideation based on data with perhaps a little conceptual elaboration.” Memos tie different pieces of the data together or show that a piece of data fits a general concept (Miles & Huberman, 1985).
In this study, open-memo coding was applied by memoing each of the participants’ responses to a question or a group of questions. The process of memoing led to responses being labeled for organizations sake, which subsequently aided in the development of themes, a process called selective coding. But as explained above, open-memo coding served more than to simply label responses, it provided a platform for the synthesis of ideas, thoughts, and concepts between the different variations and commonalities of the selected code, which was all provided by the interviewee responses. It also served as platform to check against literature, and continually revisit the purpose of the study.

Selective coding was the process of developing themes. Themes were developed if most or all of the mothers responded similarly to a question. The process of developing themes is also known as selective coding. An example of how themes were developed in this study was in mothers’ responses to the question, what do you think should be done to help the health of the Latino community? All of the mothers responded with nutrition education, to varying degrees, addressing socioeconomics, disease, cultural perceptions, and demonstrating to the Latino community, methods of preparing traditional dishes with healthier ingredients. Additional suggestions included the need of researchers to be sensitive, to conduct group classes instead of one-on-one classes, to use visual aids with simple literature, and to provide information at places most frequented by Latino mothers. From these responses, the researcher developed the theme, Solutions Emphasized Nutritional Education. Developing themes, or selective coding was made evident by the previous step, open-memo coding; described above. Asides from connecting mother responses to each other, literature, or the researchers own thoughts, open-memo coding organized mothers responses, using NVivo 9 Qualitative software,
making it clear for the researcher how mothers were responding to a question, and to
determine if there was congruency. Themes categorize responses to a question. However,
they are dynamic addressing an array of issues, and should be avoided reading in
isolation, rather it should be read in relation to the other themes to acquire a robust
understanding of the data. Responses from the interview group will be referred to as IG
or by individual names.

**Questionnaire Sample Group**

Data was also collected through questionnaires distributed to mothers through
participating elementary schools, who will be referred to as QSG (questionnaire sample
group) to support the themes developed from the interviews, and whether or not the
themes applied to a larger sample size.
RESULTS

The purpose of this study was to explore the perspective of Latina mothers, with children 0-11 years old, regarding physical activity and diet to identify characteristics for developing programs aimed towards the Latino community, coming directly from members of the community. Four themes emerged from the interview transcripts:

*Education and Family Togetherness, Nutrition As The Cause of Poor Health in The Latino Community, Nutritional Education, and The Belief of Influence.*

**Education and Family Togetherness**

The first part of the interview asked mothers what the most important things for their child was in school, with their friends, and in the family context. The responses gave an overview of what mothers valued most for their children. Mothers’ responses emphasized education and togetherness which will both be defined in its respective section below. Understanding what mothers valued the most may enhance future interventions because interventions can be designed to integrate these values.

**Education**

Participants were asked what the most important thing for their child in school was, responses that included education, learning, homework, to finish school, to grasp, to be well prepared, and curriculum led to the development of the education theme. Some responses were direct like Yolanda’s, she said, “…basically their education and that they’re safe.” Yvonne echoed this same sentiment saying, “…that they’re comfortable and happy in school, and that they’re learning everything that their supposed to be learning.” Jessica and Amy were even more direct in their answers, responding with “education” and “…her learning” respectively. Beatriz emphasized that the most
important was for her child to “finish school.” This can be due to the fact that Beatriz recently immigrated to the United States within the last ten years, and understands that education will provide her children opportunities which she does not have because her highest level of education completed was grammar school. Some of the mothers elaborated more on the importance of education:

Karla’s response had similar aspects to both Yolanda’s and Yvonne’s response, but Karla mentioned the responsibilities involved with education such as homework, and being prepared, and that having a good breakfast is important prior to leaving for school. She said:

“...homework is definitely one...being...well prepared...having a good breakfast is important...being open to whatever discussions, not being afraid. Just having that liberty of being in school and being comfortable with yourself and being able to kind of take everything...”

Jennifer’s response also had aspects similar to the mothers’ above, which in summary is to be able to understand the material, and she has made that clear to her daughter Emily, that grasping as much as she can in school is her only responsibility, and that she does not want Emily concerning herself with anything else. Jennifer said:

“...the most important of course is to obtain her education, to be able to...grasp... and concentrate as much as she can. That’s our goal... she understands that as well...let me worry about everything else...”

Carmen’s response differed the most from the other mothers, she valued a school’s performance and whether it was a distinguished school or not. This may have
been due to the fact that she volunteered at her children’s school and was exposed to conversations and topics regarding school performance and criteria. Carmen said:

“...the schools nowadays, they’re getting graded...they have something called the... I forget the word but the IYP, and the IP, and...they actually give them grades...some of them are called distinguished schools... very much looking at those things.”

Regardless of any demographic description, all of the mothers believed that education was the most important thing for their child in school. For Yolanda and Beatriz, mothers with the lowest level of education, education was probably a means for their children to have opportunities they do not currently have.

*The Family Togetherness*

Most of the mothers said that being together was the most important thing for their child in the family. Togetherness was defined by responses that expressed the importance or desire of being together, or keeping in touch with family members which Beatriz exhibited with her response:

“...communication, when there’s reunions, going together, and have meetings, and being together, working together.”

An example of how being together can occur is in Beatriz’ favorite physical activity-volleyball, which she plays with her family, every weekend during the summer months at the local park. She finds the park relaxing after a long week of working. It’s where she can meet with family, friends, and neighbors.

The weekends were also a time for Karla and her family to do things together and stay close:
“We’re a pretty tight family, we do everything together pretty much like every weekend… So, it’s just being… able to keep that tightness.”

Meals were occasions that brought Karla’s family together. It was convenient because a lot of her family members resided five to ten minutes away from her home. A snowball effect describes how these meals developed into an event. Karla would invite one person over, and that person would invite another person, and so on. Karla see’s cooking as an event:

“...I like to cook, I like to see as an event...More than just, oh let’s just cook...I see as a kinda like come together. Kind of festive.”

Though it was not always possible, having a meal together was a way Jennifer spent quality time with her daughter Emily. Sometimes Jennifer would receive flack from Emily, if her day was so busy that she neglected to ask her how her day was:

“...spending quality time together. Maybe not as much...as we would like to, but whenever we have a chance to at least a meal a day...conversating... she does get upset sometimes if... my day was very busy that I forget to... ask her right away how hers was [laughing].”

In addition to trying to have meals together, Jennifer and Emily rode their bikes, and participated in mud runs together.

A few of the mothers did not mention togetherness as being the most important thing for their child in the family setting. Some of the mothers responses highlighted their concern for their child’s welfare; that they were loved, supported, and happy, as illustrated in Yvonne’s response:
“...basically that they feel that they are loved, and that they have the support that they need, and the guidance that they need...to feel secure, and happy, and confident.”

This could be due to the fact that Yvonne’s son, Adam was only two years old.

Carmen was alone in her response. It was important to her that her children followed a consistent and routine schedule:

“...I’m very much pro discipline...there has to be... a pattern on the daily lives...there is a lot that goes on... the child’s life...they know that when they come from school there is time for food, time for homework, time for shower, time to pray, and time to go to sleep.”

Carmen followed this consistency in her own life. She exercises at a particular gym, though it’s not her favorite, because of familiarity; it was on her way to the bank and other chores.

Again, this section gave an overview of what mothers valued most for their children, particularly in the school setting in which all mothers cited education to some degree, and the family setting where most of the mothers cited togetherness; spending time with family members. In addition, 78% (21/27) of the QSG were highly in favor of Wellness Programs that included the entire family (Figure 1). This can be valuable knowledge to those designing future interventions or improving current interventions because these values can be integrated into the design.

**Nutrition as the cause of poor health in the Latino Community**

Mothers were asked how they felt about the health of the Latino population, and they all blamed poor diet to some effect, the overlying message of poor diet was used to develop this theme. However, mothers’ responses covered various aspects such as
socioeconomics, time constraints, the physical symptoms of diabetes, and cultural perceptions of food.

Yolanda’s response compared the eating habits between people in Mexico, and here in the United States. From Yolanda’s response, it seems that socioeconomics hurts people on both sides of the border. 29.6% (8/27) of the QSG believed that cost was an obstacle to healthy living (Figure 2). In Mexico they do not have enough money, so they starve, whereas here in the United States they have enough money to buy calorie-dense fast foods:

“... I haven’t been to Mexico, but...my dad tells me because he goes...here everybody... doesn’t care about their weight, over there is more different, there’s no money, sometimes they have to starve, they don’t gain as much as over here, over there they don’t have the money to spend in fast food restaurants, they have to eat anything they can afford....”

Karla blames the poor diet to parents not caring about what they’re feeding their children because of the time constraints here in Los Angeles, in which 29.6% (8/27) of QSG cited a lack of time as an obstacle to healthy living (Figure 2). She compares Los Angeles with other places that she visits which lends time to grocery shopping and cooking, which allows for the awareness of the ingredients that are being used in a dish as opposed to going to a fast-food establishment; in which 14.8% (4/27) of the QSG cited easy access to fast food an obstacle to healthy living (Figure 2), where the consumer is not necessarily aware of the ingredients being used, and how it is prepared:

“The way I see, it's just...I don't think parents are that much concern about what their kids actually eat. Nothing that they worry about, more about as long as you're being
fed! But not exactly what! They're being fed, cause that would require more time on
them... I think just the lack of time... when I go other places, I realize how fast-paced
California is. Or is it L.A?...when I go somewhere else, you actually have time to go to
the market and cook...You're more focused on what...you're cooking, and you can
actually see what's being poured... versus you go to a fast-food place...oh, that sounds
good... you don't even know what, how it's made.”

Jessica shared the consequences of a poor diet. She knew people personally, who
were amputees and/or have lost their vision as a result of diabetes:

“... I think we're deteriorating healthwise. Cause so many of us have diabetes,
and we're dying. Like a lot of people that I know... they're dying slowly, like finger, hand,
leg, and then you go blind... They're choosing a really bad quality of food...”

Carmen said, that even though there is a high rate of diabetes in the Latino
community, they do not correlate food to diseases, they’re not careful about food, they
overindulge. On the other hand however, she believes that other cultures concerns, or
awareness of foods is on par with paranoia:

“Overall...we tend to not...be very careful about food...we kind of overindulge
ourselves. We don't have the paranoia that I've seen in other cultures about food... Even
though we have such a high rate of diabetes... we don't correlate the food to
diseases...we're not ganna see the long effect, of what it does at the current time when
you're doing the damage [laughing]. Where as in another cultures...they gatta have the
splenda...if they even do the regular sugar once, is like crime...”

All of the participants attributed the poor health of the Latino community to poor
diet. The responses illustrated the complexity of why Latinos had a poor diet;
socioeconomics, time constraints, cultural perceptions of food, and not associating food with diseases. When the QSG were asked to rate the eating habits of their community, 12% (3/27) rated it as poor, 33% (9/27) below average, and 40.7% (11/27) average (Figure 3).

**Nutritional Education**

Participants were asked what they thought should be done to help the health of the Latino population. It is not surprising that their responses emphasized increasing the Latino community’s knowledge in nutrition, since the participants attributed a lack of good nutrition to the poor health of the Latino community. Responses that included the need for more knowledge of what food does to the body internally, nutrition classes including lessons on portion sizes, and understanding food labels, and/or providing adaptations to traditional dishes were used to develop this theme. Besides the nutrition content suggested by mothers, suggestions were also made for methods, delivery, and location.

Continuing from Carmen’s response from the previous theme, regarding how Latinos do not correlate food to diseases; Jessica, Jennifer, and Yolanda suggested programs for the Latino community, explaining what food does to the body internally, and hopefully the knowledge would lead to healthier choices. Yolanda answered:

“*What not eating healthy does to you... some people just eat because... the food is good, but they don’t know what it’s doing to them, so it’ll be better if they would know... what food does to them, in the inside... have more view of what happens to the body, it could actually help someone realize what they’re doing to their body, and what they could do to make it more healthier...*”
Understanding both the positive and negative effects of foods would be valuable. According to Jennifer, Latinos associate fried and greasy foods with weight gain rather than clogged arteries. The same superficial understanding goes for physical activity as well, she advocates teaching them other benefits such as having a healthy heart and increased energy. She said:

“...I think that if there was more information about nutrition, more information about the positive... benefits of working out... such as having a healthy heart... avoiding... joint problems as you get older... even increasing your energy...Latinos think more about their... physique as they, right away think greasy ganna make me fat, as opposed to greasy ganna clog... my arteries... we don’t understand the concept of how... important it is to exercise... we see more as... only a positive change in the outside of your body. If they understood, if there was more information on it I think they would... most of them would try to modify their lifestyle.”

Information and understanding has helped both Jessica and Beatriz in making behavioral changes in their lives. Prior to attending nutrition classes Jessica didn’t read package labels, and now she claims to do so all the time. A really helpful lesson was when the nutritionist brought in sugar cubes to illustrate the sugar content of common everyday indulgences; a Frappuccino in the case of the lesson Jessica shared about. That illustration served as an eye-opener for Jessica:

“...like read a label...what's in the back or bag I do that now like all the time... everywhere I go... versus before I didn't do that...Because I went through...nutritional classes, and surgery, and I had a whole... psychological thing...then I saw a nutritionist, and they literally brought... sugar cubes like, " You see this much sugar? Well this is how
much is in that Frappuccino that you're drinking", and...then you start to see the reality of it, and this is why you're here...”

Nutrition classes were beneficial to Beatriz as well because she learned about making healthier choices “...the nutrition, the people explain me...” she started serving fruits and vegetables, which her daughters slowly started eating. This change was important to Beatriz’ own health as well because her doctor told her that she needed to lower her cholesterol. Beatriz’ cholesterol is now at 167 but was previously near 300. Beatriz attributes the change in her cholesterol level to changing her diet:

“...the food...take...all the trash food for me now, and only a healthy food...for my diet you know.”

In addition to nutrition classes teaching the effects of food on the body, which foods are healthy, and which foods are unhealthy, Karla added teaching portion sizes, and keeping in mind the education level of people who would attend these classes:

“...First of all...education is really low...whether it be a nutrition class, or something, it’s probably difficult for them to even step into...more knowledge about what's healthy? What's not?... They hear it. But they really don't know...everything is so... label this, non-fat, non-this... it's just too much...And then portions is whole other thing.”

With this in mind it is important that content be delivered in a manner appropriate for those attending programs. Carmen’s idea of using simple literature could be one way to address education level. Her ideas included information she has learned from the gym she attends, delivered from a screen reading. “If you do cardio for 20 minutes, it pumps up 300 liters of blood into your system.” or simple information she has learned from
books, like the need to expend 3500 calories to lose a pound. Learning that fact made a connection with her, after learning that fact she said:

“...I’m like what!? It takes that many calories to lose one pound?...That’s insane. And how do you gain that pound?...then, just really easy you know...it’s all in the calorie intake...and then you begin to read labels...a lot of times it just comes with the education and simple perks...”

Carmen had a lot of ideas, she added that asides from providing the caloric content of each item at fast food chains, alongside it should be the amount of time it would take to burn that item on a treadmill for example. It was really simple for Carmen, calories in, and calories out. She explains:

“...to burn calories you have to...move. And the healthy good thing about moving is that you don’t have to deprive yourself of foods.”

Keeping a log would be a good method of tracking calories consumed, and maintaining balance:

“...I guess its keeping a good log of what do you ingest, what do you eating, as opposed to how you live your lifestyle, maintain a balance you know.”

To sum up Carmen’s ideas, simplicity:

“...Simple educational, tiny little labels that would bring it to your awareness...”

It is also important to keep cultural preferences in mind, and to be aware of multi-generational households when designing intervention programs for the Latino community. Karla suggested that programs should try to bridge the two cultures together, eliminating the mentality of this is an “American lifestyle”, and just explaining it as a human lifestyle for everyone. She said:
"...I think they...have to find a way to...like bridging it together where it isn't seem more Mexican-American type of lifestyle... it's just a human lifestyle...for everyone... takes away from...the way they think...”

Both Amy, and Jessica were in support of Karla’s concept. They suggested teaching healthier alternatives to traditional foods. Jessica said: “...It’s just little changes you know, you don’t really have to take it away...” Jessica’s suggestions included using olive oil, or grape seed oil instead of the lard that Latinos often use to prepare their beans, diluting juice with water, using tortillas made from cactus instead of the flour and corn tortillas, and using brown rice instead of white rice. These little changes are simple but may be difficult financially because the healthier alternatives are usually more expensive, and may not fit the family’s budget. As Jessica explains, some people may have to feed ten kids on a minimum wage job while having to keep a roof over their heads. As researchers it is important to understand the situation that participants are in, and not blame them for the dietary choices they make because it may not be feasible financially. Jessica said:

“...sometimes maybe, it’s not that they don’t want to, it’s maybe they can’t, you know, make these better eating choices versus let’s just blame em’ and say, you like to eat this way...Sometimes we just can’t assume that...”

This brings up another good point, the delivery. It is important to not criticize participants, even if jokingly, because it might automatically shut the words of the instructor out. Fortunately, in Jessica’s case the value of the information that the nutritionist gave did not escape her, but she admits the criticism, and joking gave her feelings of rebellion:
“...Cause I can tell you like when I’d be criticized I’d be like, it makes you more
defiant...and then you don’t, you don’t wanna like be subjected to like, you don’t wanna
change...”

Yvonne also touched upon this mentality when she said:

“...I mean it’s very difficult because Latino’s are very stubborn, very stubborn...”

This is the same reason Yolanda suggested that programs be administered in
group settings:

“...if you tell someone one something they can do to make themselves, their lives
better, it’s more possible that they’re not going to listen to you, who are you to tell me
what to do right? But if there’s more people, and they see that it’s true that theyr’e not
caring about our lives, what we eat then, they’re ganna say it’s true, a lot of people to do
it. Why should we live like this? Right, so it’s more better if there’s more people
involved...”

According to Jessica, the group setting is true in physical activity as well. There is
a group of women in her neighborhood, who walk together, which started off initially
with one person and has now grown to a group of five women:

“...on my block yeah, there’s like these little group of ladies that live around
there...at first it was like one, and then she recruited like the neighbor, then she
recruited...now it’s like a little five...”

In addition to local neighborhood movements suggested above, Jennifer suggested
putting out more information about health at places most visited by people i.e. the
doctors, the dentist, car washes, non-profit organizations, swim classes, and television; in
which Karla had a more specific idea of providing health knowledge during Novellas
(Mexican soap operas) commercials. Both Carmen and Jessica suggested that non-profit organizations be a venue to teach parents about making better choices. Jennifer said:

“I mean they give so much information on how to parent now, and we learn, people are learning. I’m sure that this could also be learned... at places that we...visit the most such as... the dentist, doctors... car wash... organizations, maybe non-profit organizations who can... teach parents how to make better choices cause... if it isn’t given to them they’re blinded to it you know... advertising it more.”

Mothers’ ideas for a solution emphasized nutrition knowledge, 25% (7/27) of the ESG group suggested education as a means to live healthy (Figure 4). However, a lot of layers were brought into discussion such as what to include in nutrition classes, two of the mothers; Jessica and Beatriz have benefitted from similar classes because of the visual aids used by instructors i.e. the sugar cubes representing the amount of sugar in a Frappacuino, or knowledge that empowered Beatriz to make lifestyle changes for herself and her family. Karla, Amy, and Yvonne suggested programs that taught healthier alternatives to traditional foods. They may have made those suggestions because all three of them were born in the United States and may have experienced cultural differences with their parents and/or relatives, which was clearly the case in Karla’s situation. Of the QSG group 36% (10/27) suggested being able to make better choices (Figure 4) Both Carmen, and Jessica were proponents for simplicity such as simple literature, or simple alternatives such as replacing lard with olive oil. The benefit of implementing programs in group settings was also brought to the surface because as Yolanda put it, participants would be more receptive to it. 21% (6/10) of the QSG suggested community programs as a solution (Figure 4). Jessica’s experience in nutrition classes also highlighted the need
for staying professional, being mindful of one’s comments because it might not be received as intended, and providing advice rather than criticism because of the possibility of making someone defiant. Lastly, unconventional methods were brought up as well such as television advertisements, information pamphlets at locations frequently visited by parents, and possible settings such as a non-profit organizations, or churches which could possibly provide affordable programs which was suggested by 18% (5/27) of the QSG (Figure 4).

**Belief of being Influential**

All eight of the mothers believed that they were influential in the dietary and physical activity patterns of their children. The influence mothers had were both negative, and positive, and included behavior, and values that mothers reported trying to instill into their children, as it related to physical activity and diet. Straightforward responses from mothers’, that started off with, “I think I have a huge influence, I think I have a good influence, or a lot of good influence” were used to develop this theme.

An example of a mother’s influence yielding negative results is found in the eating patterns Yolanda has formed in her children. She admits that they are picky eaters because she is too lazy to serve them vegetables, because she herself does not eat vegetables. She explained:

“Well, a lot, cause they do whatever I do...right now they are picky, I know that I made them like that cause they don’t like to eat vegetables...just because I’m lazy I don’t give them what they’re supposed to have cause I don’t eat them sometimes, that why they don’t want to eat it.”
Beatriz’s situation is opposite that of Yolanda’s, she has had a positive influence on her children’s food choices. She decided that change had to start with her, so proactively, she started providing her children with fruits and vegetables which they eventually started eating. Additionally, she limited her children’s consumption of fast food. She explains her experience:

“…It’s difficult to put the vegetable and they say, ‘no I don’t want that.’ But I say ok you can eat and little by little they start to eat vegetable…because I started with me. I need to stop no food ate outside.”

Overall, Yvonne believes that she is a positive influence to her son Adam, both in the realm of physical activity and diet, but she points out a flaw; her sweet tooth:

“I think I have a good influence on my child’s… physical or future activities and eating habits… the only thing I would like to change is the sugar though, I think mom needs to cut back but overall I think I’m a good example…”

In either case, whether it was due to Yvonne, or her mom, or both, Adam now loves sugar, which was introduced to him in the form of M&M’s, after falling and hurting himself:

“…he may have fell down and he was crying and so she shoved sugar, it was M&M’s, and he loved the M&M’s so, it was comfort because emotionally he was sad because he hurt himself…”

A monster has now been created by her mom, (Adam’s grandmother) from that event and instances afterwards, which can be attributable to the common gestures of grandmothers:
“…he’s her first and only grandchild…she definitely wants to give him everything that he wants, which is understandable... now she’s created a monster because sugar is addicting...”

This highlights not only the influence of mothers but that of relatives as well, and situations where good intentions may have conflicting messages i.e. sugar being associated with comfort.

Karla and Jennifer hope to instill in their daughters that being physically active is a way of life. At her previous job Karla would not come home until she had visited the gym:

“...I think I have a huge influence... I used to get off of work at 5 and I had to make a point that...I’ll be home by 6:30 cause I have to go the gym... I cannot, like just not go... So, I think she just sees it as a way of life, hopefully...”

The fact that Karla suffered a spinal cord injury, means that she may need her daughter’s assistance with exercise at times, which according to Karla has pushed Brittany to be more active:

“...now, that I need her help to workout with me... I think that pushes her more, to be active as well...when I'm with [Personal Trainer], working out, she's on the sides...doing... her... like exercise routines... I think... it's a big influence on her, which is great, I hope.”

Jennifer supplements the idea of being healthy as a lifestyle, by explaining to her daughter Emily, that working out is a commitment to be fulfilled, just as important as any other tasks in life:
“... there are days when it’s stressful... you have more work than others or other things that interfere with your workout but... I... always try to teach her, if you make a commitment whether you’re tired or not you should always push your mind to finish it. Never leave... things halfway.”

Jennifer makes sure that her daughter Emily, understands why she is served certain foods, which is good, so that it is not simply an arbitrary occurrence:

“...a lot of good influence... because every morning...I always make sure that she eats her breakfast before she leaves and that the breakfast is something healthy such as oatmeal... a glass of milk...I don’t like her eating cookies or chocolate at home...I don’t just do these things, I make sure she understands that these are good choices for her so, we talk about it...”

All of the mothers believed that they were influential in their children’s physical activity and/or dietary patterns. They believed this because their children were adopting behaviors, negative or positive, that were a result of their choices. Mothers were influential in various ways; such as the food they chose to feed their family. In Yvonne’s case, relatives were influential as well. Karla and Jennifer modeled to their daughters that being physically active was a lifestyle, to be included in life’s schedule. Jennifer even made sure that her daughter understood why she was fed certain foods. Again, regardless of their approach, the children were adopting behaviors that mothers were modeling, intended or unintended.

**Physical Activity and Dietary Lifestyle of Mothers and Their Children- A Spectrum**

The information in this section was included to exhibit the physical activity and dietary lifestyles of mothers and their children that researchers can work with, and not
necessarily change. This is not a theme because it did not adhere to the criteria for developing a theme/selective coding explained in the analysis section. However, knowledge of the types of physical activity and dietary patterns of the Latino population, in this study, can better guide future researchers, as to what activities to include, or what areas of nutrition to address. In both the interview and QSG, most of the children were physically active, especially in dance classes, soccer, and leisure activities such as hiking, bicycling, dog walking, and physical education classes at school. For the QSG 48% (13/27) of their children participated in thirty-one to sixty minutes of physical activity per session (Table 3), and 59.3% (16/27) of the children participated in physical activity four to five days per week (Table 3). At this age group mothers were the reason for children being active or inactive. Children were active because mothers were proactive in taking them to soccer practices, dance classes, and/or participating in leisure activities with their children such as going on a hike, or bicycling. Karla for example, took her daughter Brittany to dance classes, and did a few leisurely activities with her:

“...She dances...that consider myself? I take her [Laughing]...she dances a lot...at least four hours a week of dancing...we'll go hiking...we do swimming...take the dog for a walk. She's, plays basketball at school, but majority is dancing, she dances a lot, even at home.”

Jennifer did the same activities with her daughter Emily, but her answer was unique, in that she registered her daughter in mud runs for the both of them to do together, to hopefully motivate Emily to participate in it in the future:
“... I like racing... whenever there is a mud run that I am interested in, I always make sure... that there is... open registration for kids as well... maybe a smaller one just to kind of get her... motivated to want to do that too in the future...”

Yolanda’s children were the only ones not active, and Yolanda blames herself for this saying:

“...I know I am supposed to take my kids for walks, and everything, but sometimes... having two jobs... I can’t say that I don’t have the time cause I do, I just don’t have the motivation... I don’t really take them out to the park, they want to, but basically I don’t feel like wanting, that’s why I don’t take them.”

As for the physical activity status of the mothers, half were consistently engaged in a physical activity regimen, meaning they had a weekly routine, though it varied in frequency from once or twice a week to as many as five to six times per week, with the durations varying as well, ranging from twenty minutes to ninety minutes. In the QSG 50% (14/27) of the mothers were active two to three days per week, 25% (7/27) four to five days per week, and 21% (6/27) active only zero to one day per week (Table 3) with 62% (16/27) of the mothers engaging in physical activity for a duration of thirty-one to sixty minutes per bout (Table 3). The other half had fallen off for various reasons, such as being busy in school and/or with other responsibilities, or with vacation during the summer months, which was true in Karla’s case. Sadly, being tired from work and simply being lazy was the reason Yolanda had fallen off her routine. Regardless of whether mothers had a consistent routine or not, the activities that mothers engaged in for both groups were walking, bicycling, hiking, jogging, and swimming. In addition to the activities mentioned above, both Yvonne and Jennifer had more structured routines,
addressing the components of fitness. This could be due to the fact that they had events or reasons to train. Yvonne worked at the YMCA and was additionally trying to join the Police Academy, and Jennifer trained for mud runs.

Similar to the variations in physical activity patterns, dietary patterns varied as well. Yvonne prepared home cooked meals seven days a week, three times a day, and dined out only once a month with family and/or friends at establishments like RuthChris’ steak house. Yvonne does grocery shopping at Whole Foods and Trader Joes, her shopping list include a lot of fruits and vegetables, and whole grains. When asked to share what her family typically ate in a day Yvonne responded saying:

“…breakfast would usually be…fresh fruit for me and… for my son or oatmeal and fresh fruit for both of us…for lunch, it would be a spinach salad with heirloom tomatoes and maybe some like cucumber in there, maybe some avocado, lemon juice…dinner would usually be like steamed veggies, or…veggies that I put in the oven to bake like sweet potatoes and asparagus, things like that with… either turkey or chicken, usually it’s turkey… those are the meals, snacks are usually fruit; apples, bananas, things like that, raw nuts!”

On the other end of the spectrum was Yolanda, who dined out with her family three to four times a week either at a Mexican restaurant where her children ate a meat dish with rice, or McDonald’s because her kids liked the chicken McNuggets. Yolanda did her shopping at El Super, her groceries included yogurt, Capri Sun, ingredients for quesadillas, hot dogs, sandwiches, bananas, and oranges, and ranch sauce; which she mentioned that her kids happen to like. When asked what she cooked for her family, Yolanda said:
“Well when I cook, I cook...soups, what else, stews and I sometimes give em meats with pasta inside...stews it will be kind of like beef stews...with potatoes...and soups more like mac...kind of like spaghetti with tomato and onions, they don’t contain as much vegetables as they should, but yeah.

In the QSG 15% (4/27) of the mothers reported cooking at home two to three times per week, 48% (13/27) four to five times per week, and 37% (10/27) six or more times per week (Table 2). Dining out for the QSG group ranged from vegetarian tacos to pizzas, burgers, and Chinese food, 63% (17/27) of the ESG dined out zero to one time per week only (Table 2). Reasons for not dining included being a vegetarian or because dining out was unhealthy while most reasons for dining out was due to time, convenience, or to take a break from cooking.

The purpose of this last theme was to exhibit the physical activity and dietary patterns of mothers and their children. It is good that most of the children were active, and it may be valuable to researchers to keep in mind the activities that most of the children in this study participated in; dance, soccer, and cycling. For mothers, the physical activity of choice was jogging, walking, and leisurely activities with their children. In Yvonne’s and Jennifer’s case they were on the other end of the spectrum because their regimen was highly structured and addressed the components of fitness. Following the spectrum concept, it can be argued that Yvonne and Yolanda were on opposite ends of the spectrum in physical activity, and dietary patterns. Again, this theme was developed to exhibit the lifestyles that participants lived, to give a better understanding of where potential participants may fall in relation to certain guidelines i.e.
recommended physical activity in a day to the ACMS’s recommendation for fitness or from the My Plate to Organic Food, to veganism.
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**Primary Language**

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**Highest Level of Education**

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Table 1. Demographics of Questionnaire Sample Group
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Table 2. Frequency of Home Cooked Meals
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<tr>
<td>60min-</td>
<td>7</td>
<td>25.9</td>
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Table 3. Physical Activity
Figure 1. Support of Wellness Program including Family Members
Figure 2. Obstacle of Healthy Living
Figure 3. Rating of Neighborhood Eating Habit
Figure 4. Solution for Healthy Living
DISCUSSION

The obesity epidemic is multifaceted (Turner et al., 2008) involving the interplay of diet, physical activity, behavior, genetics, and the environment (Centers for Disease Control and Prevention (CDC), 2009a). The themes developed in this study; Education and Togetherness, Nutrition as the Cause of Poor Health in the Latino Community, Solutions Emphasized Nutritional Education, Belief of Being Influential, and Physical Activity and Dietary Lifestyle of Mothers and Their Children-A Spectrum, do not operate in isolation but interact with one another.

This study sought out the perspectives of Latina mothers, with children between the ages of 0-11 years old, regarding physical activity and diet because of the importance of understanding cultural perspectives when designing an intervention. In some cultures for example, it is desirable for women to be larger than average, so physical appearance alone may not motivate participation and/or adherence to physical activity (Forster-Scott, 2007; Lindberg & Stevens, 2011). Interventions must meet the expectations and preferences of a culture (Clark et al., 2010). In addition to understanding cultural perspectives, it is important to remember that mothers influence their children’s behavior. Between the ages of 0-11 years old, children spend most of their free time with their parents (Brustad, 1992; Greendorfer, 1992) and according to (Bois et al., 2005) mothers perceived competence of their children’s physical activity level affected their child’s participation in physical activity. All of the mothers in the IG believed that they were influential in their children’s physical activity and/or dietary behavior because they recalled that their children adopted behaviors that they catalyzed. This is a pivotal time period because risks for obesity start as early as the pregnancy stage (U.S. Department of Health and Human Services, 2010). It also provides an opportunity to intervene, and the
inclusion criteria for this study provides a snapshot of Latina mother lives’ while raising children during a malleable period, and how physical activity and diet fit into their lives, which can be valuable information to researchers.

All of the IG mothers believed that poor nutrition was the cause of poor health in the Latino community. Naturally, the IG suggested implementing interventions that provided Latina mothers with nutrition education; which was also suggested by 25% (7/27) of the QSG. An additional 36% (10/27) of the QSG suggested being able to make better choices, and though the reference is vague, the ability to make better choices may be derived from knowledge via education. (Lindberg & Stevens, 2011) examination of Mexican-American Women’s perspectives suggested nutrition education as a needs and action strategy. Programs for the Latino community that have included a nutritional component have influenced behavior change. Women in (Coleman et al., 2010) Horton Hawks Stay Healthy (HHSH) program reported cooking with more veggies, eating less meat, and drinking more water. Women who did not regularly attend mentioned that more cooking demonstrations would have served as motivation to attend. Mother-daughter dyads in (Olvera et al., 2008) The Behavior Opportunities Uniting Nutrition Counseling and Exercise (BOUNCE) program reported food tasting helpful and enjoyable. Mothers found nutrition education very helpful, which included, grocery shopping, food tasting, portion sizes, reading food labels, and reducing the consumption of dietary fats and sugars. In addition to the changes reported by mothers in the HHSH program, BOUNCE program participants reported consuming less sugar, consuming smaller portion sizes, and drinking more skim or 1% milk.
The content in nutrition education programs suggested by the IG mothers included: the effects of certain foods to the body/correlation of certain foods to diseases, and how to prepare healthier Latin dishes. Suggestions for content delivery included using visuals to drive a message home, such as in Jessica’s experience when her nutritionist brought in a sandwich bag, which illustrated the amount of sugar cubes in a Frappacuino. Another strategy was the use of simple literature suggested by Carmen, like information bubbles that read, you need to burn 3500 calories to lose a pound. These are helpful suggestions, because as Karla said, participants might have low-education, so simple literature would accommodate that possibility and additionally, be more convenient to those that have time constraints. In addition to information that can be used for interventions, Jennifer suggested putting out information through pamphlets, that can be placed in key locations in the community, such as the the doctor’s office, the dentist, the car wash or even commercials on Spanish television during Novellas.

IG mothers did not elaborate on physical activity which emphasizes it’s need to be included in an intervention in conjunction with the suggested nutritional education component. Participants in Small’s study said, that they would be able to model proper behavior if they knew more about nutrition and physical activity. Withall’s study reported a lack of available space for physical activity, which can be alleviated by physical activity knowledge, demonstrating to participants ways of being physically active with minimal facilities. At the time of interview, half of the IG had fallen off of their physical activity routines. This was due to various reasons: laziness, time constraints, and vacation. Of the active mothers in the IG, Amy lessened her physical activity routine in the winter because of cold weather. More than half of the QSG 52% (14/27) rated the
physical activity participation of their community as average, and 26% (7/27) as below average. As a group however, the QSG was more active than the IG, 78% (22/27) of the QSG was active, participating in physical activity from two to six times per week. Regardless of group though, walking, and dancing was the physical activity enjoyed and/or participated in by most of the mothers in both the IG and QSG. Most of the children of the IG and QSG participated in soccer, bicycling, and dancing. Mother-daughter dyads in the BOUNCE program reported that dancing was their favorite physical activity (Olvera et al., 2008). The obstacles to and physical activities enjoyed by the IG and QSG and their children can be used in designing a physical activity component of an intervention. In both the IG and QSG a range of physical activity patterns persisted from no physical activity at all to a highly structured physical activity regimen addressing all the components of fitness.

This study did not establish measurements or definitions for healthy or unhealthy, however, there was a spectrum of physical activity and dietary lifestyles among mothers in the IG, with Yvonne and Yolanda on opposite ends of the spectrum, and with Yvonne arguably being on the “healthier” end and Yolanda on the “unhealthy” end. The importance of presenting the varied lifestyles of the IG is to exhibit the range of lifestyles researchers may encounter when implementing future programs. Though mothers who are on the “healthy” end of the spectrum may not participate in future interventions, recruiting them as promotoras (lay health person) should be considered. The Familias Sanas y Activas was a train the trainer (promotoras) intervention, and it improved fitness measurements for participants under the leadership of the promotoras: decrease in systolic blood pressure and waist circumference, and increases in flexibility and aerobic
fitness; which at the time of completion was the only intervention to show improvements in aerobic fitness for the Latino community (Ayala, 2011). Based on Jessica’s experience, it is also believed that recruiting promotoras may eliminate cultural misunderstandings, and serve as a genesis for neighborhood walking groups.

Physical activity and nutrition was not the most important thing for IG mothers regarding their children in the school and family setting. Education was obviously the most important in the school setting and togetherness in the family setting. Interventions including family members such as the Horton Hawks Stay Healthy program that provided age appropriate classes to adults and their children (Coleman et al., 2010) and the BOUNCE program that included mother-daughter dyad participants (Olvera et al., 2008) would serve as good templates for interventions in the Latino community. 78% (21/27) of the QSG were highly in favor of programs that included family members because it would allow parents to be role models and teach children the importance of physical activity and proper nutrition, while educating every family member and coordinating physical activity and nutrition goals, and being efficient on time. The importance of these reasons can be observed in the IG responses.

In the IG group, mothers influenced their children’s physical activity and dietary patterns, which is why it is important for mothers to learn proper knowledge so they can model healthy behavior to their children. Having coordinated goals is great as well because in Yvonne’s case, though she modeled healthy behaviors, her mom undermined it by giving her son Adam candy. Implementing programs including family members would meet important values in the IG; education and togetherness, while addressing
education in physical activity and nutrition; the suggested solution by IG mothers for the Latino community.

**Implications**

The information gathered from the participants of this study suggests future interventions for the Latino community need to be multifaceted. The BOUNCE program serves as a good template because it was designed by experts from multiple disciplines, and reviewed and revised by experts of Latino culture, including a lay person from the community. A pilot study revealed that mothers wanted hands on cooking lessons, for classes to be conducted in Spanish, and administered after school. The BOUNCE program included nutrition education, counseling, and an exercise component (Olvera et al., 2008).

Nutrition education in the BOUNCE program addressed reducing the intake of sweetened beverages, reducing saturated fat consumption, and teaching healthy eating strategies when dining away from home. Eating strategies away from home would be a valuable lesson as mothers from the IG and QSG often dined out. Considering the suggestions of the IG, programs should also include why these topics are important, and how non-adherence correlates to the onset of disease such as diabetes, heart disease, or obesity, if they do not do so already. Additionally, healthier alternatives to traditional foods, clarifying the meaning of food labels, and explaining portion sizes should be demonstrated to participants as well.

The behavioral component of the BOUNCE program had three goals: Enhancing self acceptance, clarifying distorted thoughts about food, body weight, and exercise, and teaching problem solving techniques, and coping strategies to handle challenging
situations: including stimulus control to identify and replace situations that trigger eating, dietary and exercise goal setting, and management plans including intrinsic and extrinsic rewards and role modeling. This would address the superficiality that Latinos have in regards to food and physical activity. According to Jennifer, consuming greasy foods, is associated more with weight gain, instead of the clogging of arteries. She believes that health benefits for participating in physical activity, such as having a healthy heart, and more energy be explained to participants. This behavioral component would address a lot of the topics that the IG brought to light, that were obstacles to both physical activity participation and healthy nutrition such as time constraints, vacation, and laziness.

The Exercise component of the BOUNCE program included performing moderate to vigorous physical activity, and allowed participants to use various pieces of equipment. It consisted of three weekly sessions; two sessions of intermittent aerobic conditioning such as salsa, samba, hip-hop dance, step aerobics, and resistance training with bands and body weight, and one session of team sports activities and recreational free play. Handouts reinforced concepts that were taught in class, they provided tips on being more active at home and away from home, and identified barriers to physical activity, and effective physical fitness goal setting strategies. Dance was an activity enjoyed by children of the IG and QSG, along with soccer and bicycling. Future interventions should consider a walking and/or hiking component, as it was the activity that the IG and QSG participated in the most frequently.

Exposure to a wide range of different intensities, and varieties of physical activity would perhaps help participants understand the difference between physical activities for
health and fitness, and where participants fall for each respective activity and intensity. Clarifying exercise guidelines and recommendations would be beneficial, as it seemed that a few of the IG chose physical activities arbitrarily. Having an array of exercise tools e.g. knowing how to perform resistance training with resistance bands and/or with body weight would hopefully help participants continue a physical activity regimen in spite of time constraints, being on vacation or having lack of accessibility to parks and gyms.

Including family members would serve future interventions well because the IG highly valued togetherness in the family setting. The ESG supported programs including entire family members for various reasons: because of the ease of coordinating time and goals, physical activity and nutrition education for the entire family, and lastly, the opportunity for parents to be role models; IG parents’ behavior, whether healthy or unhealthy influenced that of their children. Including entire family members would also decrease the chances of other family members undermining the attempts at living a healthier lifestyle, as was the case in Yvonne’s son, Adam, who was introduced to candy and sweets by his grandmother. Having coordinated efforts would also provide encouragement and support from everyone in the family.

Other practical suggestions provided included Karla’s, which was keeping in mind the education level of participants that would attend, it would be necessary to teach class and provide materials at the appropriate levels. Carmen’s suggestion of providing simple literature, composed of quick facts e.g. the amount of time necessary on a treadmill to burn calories consumed from a burger, or the necessary amount of calories that need to be expended to burn off a pound, would be beneficial to anyone, regardless of education level because of time constraints, convenience, and instant connection.
Jessica benefited from seeing the bag of sugar cubes illustrating the amount of sugar in a typical beverage. Her experience also heeds warning to anyone involved in an intervention for the Latino community, to remain professional in spite of the comfort reached with participants. Recruiting promotoras led to fitness improvements for the Latino population (Ayala, 2011), and would also eliminate offensive experiences, such as the one shared by Jessica. Promotoras would be members of the community therefore increasing the chances of sustainability, perhaps they would be participants who engaged in physical activity regularly; mothers like Yvonne, and Jennifer from the IG who can be role models not only to their families but their communities.

**Conclusions**

The interviews revealed that mothers valued education the most, for their children, in school, and togetherness, in the family setting. Mothers blamed poor nutrition as the cause of poor health, in the Latino community, so it was no surprise that they suggested nutrition education as a solution, to improve the health of the Latino community. Mothers also believed that they were influential, in the dietary and exercise lifestyles that their children adopted. The mothers, and their children lived varied lifestyles, from unhealthy, as Yolanda exhibited, to healthy, such as the lifestyle Yvonne lived.

This study highlighted the importance of conducting multifaceted interventions for the Latino community, such as the BOUNCE (Olvera, 2008), HHSH (Coleman, 2010), and the Familas Activas y Sanas (Ayala, 2011), which have all recorded positive behavioral changes in participants.
**Strengths and Limitations**

The limitation of this study was the sample size of eight participants for the interview group and twenty-seven participants for the elementary school group. The interviews and questionnaires were conducted on mothers who only spoke English, responses may have been different from mothers who were not proficient in English. The results from this study cannot be generalized, they apply only to those similar to the participants in this study. The strength of the study was the robustness of responses from participants regarding physical activity and diet, providing a snapshot of what participants experienced in their everyday life as a whole.

In addition to interviews, future studies should take anthropometric measurements, and track dietary consumption and actual physical activity frequency, intensity, and type. This will allow for correlation between lifestyle and responses. Qualitative interviews can also be utilized in future quantitative studies, during the formative phases or pilot phases to make adjustments based on robust responses from participants. Interviews can also be included in pre and post measurements in future interventions, to reveal participants thoughts about an intervention, which can be used for refinement and insight to participants psyche. Future studies can also interview fathers and children to gain a snapshot of the entire family dynamics. Future studies should also include all Latino mothers regardless of proficiency in English, to get a larger understanding of the population, in regards to physical activity and diet.


APPENDIX A

INTERVIEW QUESTIONS

1. What are the most important things for your child…
   a. In school?
   b. With friends?
   c. With family?
   d. How can it be attained?

2. What makes a person healthy?

3. What kinds of food do healthy people eat?

4. What physical activities do you and/or your child engage in? Where do you go and what do you do? Tell me about it.

5. What are your favorite physical activities?

6. Where do you go to participate in these physical activities?
   a. How far is it from your home?
   b. Why do you go there?
   c. Do you do these physical activities with someone? If so, then with who?
   d. About how many times a month do you do these physical activities?

7. When you think about feeding your family, what comes into your mind?
   a. Food prepared at home:
      i. How many times in a week do you prepare and/or cook meals in the home?
      ii. What kind of meals are those?
   b. Dining Out
      i. How many times per week do you eat/dine out?
      ii. Where do you eat/dine out?
      iii. What kind of meals do you order?

8. Tell me what happens when you go to the market? What do you do?
   a. Where do you buy your groceries?
   b. How far away from your home is the market?
   c. What do you buy? Why?
9. Tell me what you think about people who exercise?

10. What influence do you think you have on your child’s health i.e. physical activity and nutrition?

11. Overall, what do you feel about the health of Latino population? Why?

12. What do you think can be done to improve their health?

13. What are the benefits of healthy eating?

14. What are the benefits of a healthy weight?

15. What are some ways to achieve these?

16. What are some obstacles in achieving these?
DEMOGRAPHIC SURVEY

1. What is your age?
   - 18-25
   - 26-40
   - 41-55
   - 56 or older

2. What is your primary language?
   - English
   - Spanish
   - Other

3. What is the highest level of education you have completed?
   - Grammar school
   - High school or equivalent
   - Vocational/technical school (2 year)
   - Some college
   - Bachelor’s degree
   - Master’s degree
   - Doctoral degree
   - Professional degree (MD)
   - Other

4. What is your current marital status
   - Divorced
   - Married
   - Separated
   - Single
   - Widowed

5. How long have you been living in the United States?
   - Less than 9 years
   - 10-19 years
   - 20-29 years
   - More than 40 years
6. How many children under 13 live in your home?
   - None
   - 1
   - 2
   - 3
   - 4
   - 5 or more

7. Including yourself, how many persons live in your household?
   - 2
   - 3
   - 4
   - 5 or more

8. What is your current employment status
   - Full-time
   - Part time

9. What is your current occupation?
   - Professional/technical
   - Manager
   - Clerical
   - Sales
   - Crafts/trades
   - Operator
   - Laborer
   - Service worker
   - Homemaker
   - Student
   - Unemployed
   - Other
QUESTIONNAIRE FOR ELEMENTARY SCHOOL MOTHERS

Directions: This survey consists of both fill-in and short answers in no particular order. For the fill-in questions please fill-in the bubble for the answer that applies. For the short answer questions please write your response in the space provided. The first portion of the survey consists of demographic information. The second portion of the survey consists of questions regarding physical activity and diet. Please answer as accurately as possible. Thank you for your participation.

Part I Demographic Information
1. What is your age?
   - 18-25
   - 26-40
   - 41-55
   - 56 or older

2. What is your primary language?
   - English
   - Spanish
   - Other

3. What is the highest level of education you have completed?
   - Grammar school
   - High school or equivalent
   - Vocational/technical school (2 year)
   - Some college
   - Bachelor’s degree
   - Master’s degree
   - Doctoral degree
   - Professional degree (MD)
   - Other

4. What is your current marital status
   - Divorced
   - Married
   - Separated
   - Single
   - Widowed
5. How long have you been living in the United States?
   - Less than 9 years
   - 10-19 years
   - 20-29 years
   - More than 40 years
   - All my life

6. How many children 11 years old or younger live in your home?
   - None
   - 1
   - 2
   - 3
   - 4
   - 5 or more

7. Including yourself, how many persons live in your household?
   - 2
   - 3
   - 4
   - 5 or more

8. What is your current employment status?
   - Full-time
   - Part time
   - Unemployed

9. What is your current occupation?
   - Professional/technical
   - Manager
   - Clerical
   - Sales
   - Crafts/trades
   - Operator
   - Laborer
   - Service worker
   - Homemaker
   - Student
   - Unemployed
10. How would you describe yourself?
   o American Indian/Native American
   o Asian
   o Black/African American
   o Hispanic/Latino
   o White/Caucasian
   o Pacific Islander
   o Other

Part II Physical Activity and Diet

1.) a. How many times a week do you cook at home?
   o 0-1
   o 2-3
   o 4-5
   o 6 or more

   b. If you do cook at home, then which meals *i.e.* breakfast, lunch, dinner? What do you cook?

2.) a. How many times a week do you do physical activity?
   o 0-1
   o 2-3
   o 4-5
   o 6 or more

   b. If you do physical activity, what kind is it?

   c. If you do physical activity, how long do you spend each time?
   o 1-30 minutes
   o 31-60
   o Over 60 minutes

   d. What is the benefit of physical activity?

3.) a. What do you think of wellness programs *i.e.* nutrition programs, physical activity programs and/or both, that include the participation of all family members?
   o Not in favor
   o Somewhat in favor
   o In favor
   o Highly in favor

   b. Please explain why?
4.) a. How many times per week do you and your family eat fast foods i.e. McDonald’s, Taco Bell, Jack in the Box, Burger King, Food trucks etc?
   - 0-1
   - 2-3
   - 4-5
   - 6 or more

   b. Why?

   c. What do you order?

5.) a. Where do you do physical activities?
   - Park
   - In the neighborhood
   - A community center
   - Gym
   - I do not do physical activity

   b. How long does it take to get there?
   - 1-10 minutes
   - 11-15 minutes
   - 16-20 minutes
   - 21-30 minutes
   - Over 30 minutes

6.) a. Where do you do your grocery shopping? i.e. Ralph’s, Pavillions, Vons, Trader Joes, Food For Less, Vallarta, etc.

   b. How long does it take to get to the grocery store?
   - 1-10 minutes
   - 11-15 minutes
   - 16-20 minutes
   - 21-30 minutes
   - Over 30 minutes

   c. Why do you do your grocery shopping there?

   d. Please provide a list of items that you usually buy at the grocery store.

7.) How would you rate your community in terms of physical activity participation?
   - Poor
   - Below average
   - Average
8.) How would you rate your community in terms of eating healthy?
   - Poor
   - Below average
   - Average
   - Above average
   - Excellent

9.) What are the obstacles in improving the health of your community?

10.) How would you improve the health of your community?

11) a. How many days a week does your child do physical activities?
   - 0-1
   - 2-3
   - 4-5
   - 6 or more

   b. If your child does physical activity, what physical activities do they do?

   c. If your child does physical activity, how much time do they spend each time?
   - 1-30 minutes
   - 31-60
   - Over 60 minutes

12.) What makes a person healthy?

13.) What is the biggest challenge in being healthy?

14.) Please provide an example of what you and your family usually eat in a day.
Graduate Thesis title: *Insider Information from Latina Mothers to help Develop Culturally Appropriate Programs and Policies*

You are invited to participate in a study titled *Insider Information from Latina Mothers to help Develop Culturally Appropriate Programs and Policies*, conducted by Michael E. Jara, a graduate student in the Department of Kinesiology. The study will take place either at an agreed upon location between the researcher and the participant or in the Kinesiology Department at California State University, Northridge.

**Introduction:**

Before adolescence, children spend most of their free time in the family context, during this period parents are influential in the socialization of their children. (Brustad, 1992; Greendorfer, 1992). It would then be beneficial to study the culture, perceptions, beliefs, and values of parents, regarding physical activity and diet, during this time period to better design programs or policies towards obesity.

You are invited to participate in this study if you meet the inclusion criteria a) Latina mother with at least one child pre-adolescence b) have the ability to speak, read and write in English c) have the ability to participate in an interview lasting approximately 1 hour

**Description of Research:**

In this study you will be asked to complete a questionnaire that pertains to demographic information and participate in an interview lasting approximately 1 hour. During the interview, you will be asked questions pertaining to perceptions, values, knowledge, and beliefs about physical activity and diet.

**Data collection procedures:**

- Participants will sign the informed consent form
- Both verbal and written instructions will be given to the participant prior to answering the questionnaire and participating in the interview (The interview will be audio recorded)
- Participants will be excused at the completion of the interview
- A follow-up interview via phone call may take place for clarification of participant responses.
- Interview will be approximately 1 hour
Risks:
The risks for this study are minimal. During the course of an interview, a participant may get tired from the duration of the interview and/or offended from the questions.

Benefits:
Information provided by participants may help develop culturally appropriate programs and/or policies regarding obesity in the Mexican-American community in specific communities in the San Fernando Valley.

Confidentiality:
Any information and audio recordings collected in this study will remain confidential and will be disclosed only if required by law. The cumulative results of this study will be published, but individuals will be replaced by a numeric code for confidentiality. All documentation/data/audio recordings will be stored in a secure location located in the department of Kinesiology (RE 284) for up to 5 years after publication acceptance (APA, 2001) at which time documentation of any identifiable information and audio files will be destroyed. Only Michael E. Jara, the primary researcher, and Dr. Maryjo Sariscansy, research advisor will be allowed to access the data and audio recordings.

Concerns:
If you wish to express a concern about the research, you may direct your question(s) to Research and Sponsored projects, 18111 Nordhoff Street, California State University, Northridge, CA 91330-8232. Research and Sponsored projects may also be reached by telephone at (818)-677-2901. With specific questions and concerns about this study, you may contact Dr. Maryjo Sariscansy, research advisor, in the department of Kinesiology (Redwood Hall) 18111 Nordhoff Street, Northridge, CA 91330-8287. The research advisor can also be reached at phone number (818) 677-7572. You will also receive a copy of the consent form for your personal records.

Voluntary Participation & Rights:
Participation in this study is completely voluntary and you may withdraw from the study at anytime, for any reason without penalty.

Audio Recording:
During the course of the intervention participants will be audio recorded. Your initials here________________ signify your concern to allow your child to be audio videotaped. Audio recordings will be used to transcribe and analyze interviews. All audio recordings will be kept in a secure location in the Kinesiology department (RE 284) for up to 5 years after publication acceptance (APA, 2001) at which time documentation of any identifiable information and audio files will be destroyed.
I have read the above and understand the conditions outlined for participation in the described study. I have been provided with the copy of this consent form to keep and I give the informed consent of myself to participate in the study.

CONSENT:
Participant Name
_________________________________________________

Last First MI

Signature______________________________________________Date________

Address_________________________________________________________

City____________________________State______________Zip____________

Witness/P.I. signature_____________________________________Date________________

If you have signed this form, please return one copy in an envelope by mail to:

Michael E. Jara
Department of Kinesiology
California State University, Northridge
18111 Nordhoff Street
Northridge, Ca, 91330   Mail Code: 8287

Please keep a copy of this consent form for your personal records
Dear Committee Members:

Michael E. Jara has permission to conduct the project entitled: *Insider Information from Latina Mothers to help Develop Culturally Appropriate Programs and Policies*. I have reviewed the project and am aware of all the activities involved in the project including questionnaires and interview questions.

Signed,
The rights below are the rights of every person who is asked to be in a research study. As an experimental subject I have the following rights:

To be told what the study is trying to find out,

To be told what will happen to me and whether any of the procedures, drugs, or devices is different from what would be used in standard practice,

To be told about the frequent and/or important risks, side effects or discomforts of the things that will happen to me for research purposes,

To be told if I can expect any benefit from participating, and, if so, what the benefit might be,

To be told the other choices I have and how they may be better or worse than being in the study,

To be allowed to ask any questions concerning the study both before agreeing to be involved and during the course of the study,

To be told what sort of medical treatment (if needed) is available if any complications arise,

To refuse to participate at all or to change my mind about participation after the study is started. This decision will not affect my right to receive the care I would receive if I were not in the study.

To receive a copy of the signed and dated consent form.

To be free of pressure when considering whether I wish to agree to be in the study.

If I have other questions I should ask the researcher or the research assistant, or contact Research and Sponsored Projects, California State University, Northridge, 18111 Nordhoff Street, Northridge, CA 91330-8232, or phone (818) 677-2901.

X

Signature of Subject

Date
Sujetos Experimentales
Declaración de Derechos

Los derechos que a continuación se mencionan, son los derechos de cada persona que participa en esta investigación. Toda persona al participar en estos estudios, tiene derecho:

A saber que es lo que el estudio esta tratando de investigar,

A estar informado de lo que sucederá, los procedimientos, los medicamentos, y los dispositivos, sean ó no diferentes a los utilizados en un procedimiento normal,

A saber la frecuencia y ó el grado de riesgo, efectos secundarios, ó incomodidades que sucederan en el transcurso de la investigación,

A saber si hay algún beneficio al participar en el estudio, y cual seria ese beneficio,

A saber si existen otras alternativas que puedan ser mejores ó peores que, participar en esta investigación,

A que se le permita hacer preguntas antes de participar en el estudio, al igual que en el transcurso del mismo,

A saber que tipo de tratamiento médico (si es necesario) está disponible en caso de que ocurran complicaciones,

A renunciar a la participación en el estudio, aún cuando ya haya comenzado. Cualquier cambio de decisión no afectará el derecho a recibir la atención que se proveería al no ser parte de esta investigación,

A recibir una copia firmada y fechada de la hoja donde se autorizó la participación,

A estar libre de cualquier presión al decidir si quiere ó no participar en el estudio.

En caso de tener preguntas, puede comunicarse con el investigador, el asistente de investigación, ó a la oficina de Research & Sponsored Projects, California State University, Northridge, 18111 Nordhoff Street, Northridge, CA 91330-8232 ó al teléfono (818) 677-2901.

X
Firma del participante
Fecha