SCHOOL BASED HEALTHY LIFESTYLE CURRICULUM AND PROGRAM EVALUATION TO REDUCE CHILDHOOD OBESITY

A graduate project submitted in partial fulfillment of the requirements
For the degree of Master of Science
in Family and Consumer Sciences

By

Xochitl M. Valdivia

August 2013
The graduate project of Xochitl M. Valdivia is approved:

__________________________________________________________________________
Annette Besnilian, EdD, MPH, RD

Date

__________________________________________________________________________
Claudia Fajardo-Lira, PhD

Date

__________________________________________________________________________
Setareh Torabian-Riasati, DrPH, RD, Chair

Date

California State University, Northridge
# TABLE OF CONTENTS

Signature Page  ii  
Dedication iv  
Acknowledgment v  
Abstract vi  

## CHAPTER I – INTRODUCTION  
Statement of the Problem 2  
Purpose 3  
Goals 3  
Research Questions 4  
Assumptions 4  
Limitations 4  

## CHAPTER II – REVIEW OF LITERATURE  
Overview of Childhood Obesity 6  
Obesity Definition and Prevalence 6  
Contributing Factors of Childhood Obesity 7  
Dietary Habits 7  
Parental Influence 8  
Socioeconomic Status 9  
Healthy Lifestyles Classes as an Intervention Strategy 11  
Curriculum 13  
Physical Activity – Zumba 14  
Food Demos and Interactive Games 16  

## CHAPTER III – METHODOLOGY  
A Taste of Good Health (ATOGH) 18  
Curriculum Design 19  
Descriptive Analysis 23  
Program Outcomes 24  

## CHAPTER IV – RESULTS  
Discussion of Results 26  

## CHAPTER V – DISCUSSION  
Discussion of the Findings 31  
Implications for Future Studies 34  
Conclusion 36  

REFERENCES 37  

APPENDICES 43-92
DEDICATION

I dedicate this project to my loving parents who have always been so supportive of pursuing a higher education. Also to my sister, who I am very proud of and is pursuing her own educational adventure. My family and friends have always been positive and supportive, and for that I am forever grateful. Last but not least, I would like to thank all of the volunteers and participants who took part in the A Taste of Good Health Project – it was truly a fun experience and your involvement made it all worth it.
ACKNOWLEDGEMENT

I would like to acknowledge the following four individuals for their support and words of wisdom: Dr. Chowa, Dr. Torabian, Dr. Besnilian, and Dr. Fajardo.

Thank you Dr. Chowa for spearheading the whole process and getting me in the mindset to start the write-up for the project. Dr. Torabian, I would like to thank you for jumping on board, despite the fact that it was later in the game. I am honored to have had you as a professor at CSUN, and as a committee member. Dr. Besnilian, thank you for involving me in this great project where I not only had the opportunity to give back to my community, but also learn from my community. Last but not least, Dr. Fajardo thank you for believing in me throughout the years at Cal State Northridge and for being my go-to person for advice and support.

All four of these professors are amazing women that are an inspiration to all who are searching for their niche in the fields of nutrition and food science.
ABSTRACT

SCHOOL BASED LIFESTYLES CURRICULUM AND PROGRAM EVALUATION 
TO REDUCE CHILDHOOD OBESITY

By Xochitl Valdivia

Master of Science in Family and Consumer Sciences

Childhood obesity rates in the United States have reached epidemic levels and nearly one in three children in America are overweight or obese. Studies have indicated that the causes of obesity are multifactorial, calling for various forms of prevention (Harper, 2006; DeMattia & Denney, 2008; Iriart, Handal, Boursaw & Rodrigues, 2011; Lindsay, Sussner, Kim & Gortmaker, 2006). The demand for methods of prevention and treatment has grown parallel to the increased rates of obesity. Culturally sensitive and learner-centered nutrition education, in particular, has been proven to be an effective tool for the promotion of healthier lifestyles for all ages and ethnicities (Buscemi, Beech & Relyea, 2009; Chaudhary & Kreiger, 2007; Iriart et al., 2011).

Various attempts to address the issue of childhood obesity in the form of nutrition education programs have existed, though there have not been many programs that also address a follow-up session where the participants discuss the lifestyle changes and progress made after the program. The School-based Obesity and Diabetes Initiative, also known as SODI, is a wellness program created through the collaboration of Northridge Hospital, the CSUN Dietetic Internship (DI) program and the Los Angeles Unified
School District 1 (LAUSD) to help families implement healthy behaviors such as healthy eating and increase physical activity. This wellness initiative began in 2006 to cater to the elementary and middle schools in Granada Hills, Northridge, Reseda, Panorama City and Canoga Park. The parent education component of A Taste of Good Health, whose title was developed by the DI director, is a program made up of 3 components that include nutrition education, physical activity and food demonstrations. The purpose of this graduate project was to create and evaluate an interactive and dynamic curriculum that catered to the Spanish-speaking parents in the LAUSD schools. The curriculum included lesson plans on MyPlate, portion sizes, water consumption, health benefits of exercise, reading food labels, importance of increased fruit and vegetable intakes, and healthy shopping and dining-out tips.

The effectiveness of the intervention was measured with the use of educational games such as Nutrition Jeopardy and participant feedback during debriefment sessions at Week 4. The debriefing questions were designed to determine how effective the curriculum was and to obtain feedback from participants on how to change and improve the program. The physical activity component was made up of 20-30 minute introductory Zumba lessons that were also evaluated during the 4th week debriefment. Results from the qualitative analysis indicated recommendations on how to improve the curriculum for future implementation and exhibited an improvement in the levels of nutrition education for those who participated though were not assessed for this graduate project.
CHAPTER I
INTRODUCTION

The children of today face a great health obstacle – childhood obesity rates are considered a disease condition with epidemic consequences (Iriart et al., 2011). According to the Centers for Disease Control and Prevention (CDC), obesity now affects approximately 17% of all children in the United States, almost three times as many children since 1980 (Center for Disease Control and Prevention, 2013). As a result of early obesity onset, several health problems may arise in childhood including hypertension, dyslipidemia, and type 2 diabetes. These diseases may impair the quality of life and decrease life expectancy (Taft, Collier & Kolasa, 2012). Through the analysis of obesity rates, researchers have also observed that obese children are more than likely to become obese adults with increased risks of health implications and related medical costs (Lytle et al., 1996).

The onset of childhood obesity stems from multifactorial causes related to behavior, environment and genetics resulting in health disparities by race, ethnicity and socioeconomic status (Iriart, Handal, Boursaw, & Rodrigues, 2011). In response to the increased rates, it is important to develop preventive methods and solutions. Attempts range from school-based obesity prevention programs to one-on-one counseling sessions where outcomes are variable and follow-up information is scarce. According to Lindsay, Sussner, Kim, & Gortmaker (2006), few studies exist that evaluate the effectiveness of such programs and the search continues for programs that are both cost-effective and prove to shape healthful behaviors in children.
Prevention continues to push its way to the forefront of all healthcare professions and the idea of lengthening life spans and creating a more positive and healthier future for today’s children makes this action imperative. The Taste of Good Health nutrition education curriculum incorporates nutrition lessons, physical activity and food demonstrations for parents to implement healthy habits with their families.

Statement of the Problem

Childhood obesity is one of the leading causes of preventable deaths, rising healthcare costs, and debilitating medical diagnoses such as hypertension, dyslipidemia, and type 2 diabetes, depression and asthma (Rossen & Schoendorf, 2012), and the great extent of the childhood obesity problem has been well documented by the CDC (Center for Disease Control and Prevention, 2013). The increased risk of obesity associated with childhood obesity has driven a plethora of research studies and dietary interventions to target children and their families. As youth continue to grow, the obesity risk for youth and children can be determined by body mass index (BMI) percentiles using national height and weight data. The anthropometric measurements for children are compared to age and sex-specific growth charts to determine the corresponding BMI percentiles. The Latino population in particular has exhibited racial and ethnic disparities in obesity prevalence among U.S. children and adolescents. As of 2008, Hispanic boys aged 2 to 19 years were significantly more likely to be obese than non-Hispanic white boys, while non-Hispanic black girls were significantly more likely to be obese than non-Hispanic white girls (Center for Disease Control and Prevention, 2013). Similarly, a study conducted by the Los Angeles County Department of Public Health found that the San Fernando Valley, which encompasses the 5 LAUSD schools chosen for ATOGH, has
high rates of obesity-related diseases in the state of California (Key Indicators of Health, 2013). The treatment and prevention of health disparities by race, ethnicity and socioeconomic status continues to be an area of interest for healthcare professionals and research alike.

Purpose

The curriculum for A Taste of Good Health aims to address the need to reduce the rate of obesity and related diseases among public school students, their parents and teachers. The purpose of this project was two-fold. The first was to create an interactive and dynamic 4-week nutrition curriculum and evaluate the effectiveness of the curriculum in improving the knowledge and attitudes of the parents from 5 elementary schools towards healthier lifestyle changes for themselves and their families.

Goals

The overall goals for this graduate project were to educate and empower parents from 5 elementary schools about healthy lifestyle changes, allow them to learn basic health knowledge, and increase physical activity levels to prevent sedentary lifestyles. The ATOGH program also incorporated evaluative methods by means of debriefment sessions where the participants themselves stated which aspects of the program were the most useful or least useful, and provided recommendations to improve the curriculum for future implementation. The Zumba physical activity was also evaluated by the participants to discover what they liked or disliked, evaluate the level of ease or difficulty, and determine which other types of exercise they would be interested in learning for similar programs in the future.
Research Questions

- How can the curriculum be tailored specifically for the parents at the 5 designated elementary schools?
- Will the Zumba group exercise help increase participants’ levels of physical activity and decrease dropout rates from the program?
- What effect will the food demonstrations and Nutrition Jeopardy have on participant’s ability to learn the nutrition lessons?
- What suggestions will participants recommend during the debriefing session at Week 4 in order to evaluate and improve the curriculum for future implementation?

Assumptions

- The curriculum will be implemented in 5 different LAUSD elementary schools located in the San Fernando Valley.
- All participants will be actively involved in all activities of the ATOGH nutrition program.
- Participants will attend all classes, which include the initial 4-week lessons and the follow up session at Week 12.
- Participants will provide feedback during the debriefing sessions in order to help evaluate and improve the ATOGH curriculum and Zumba physical activity.

Limitations

- The curriculum was delivered to a Spanish-speaking population and therefore cannot be generalizable.
• The participants from all 5 elementary schools voluntarily agreed to be part of the ATOGH program.

• Communication between the instructor and the participants may have been lost in translation due to language barriers.

• Anthropometric measurements (height, weight, Body Mass Index- BMI and body fat percentage) or changes in health behaviors were not assessed for this graduate project.
CHAPTER II
REVIEW OF LITERATURE
Overview of Childhood Obesity

Obesity Definition and Prevalence

Due to progressively changing food habits in the last few decades, the combination of evolved food patterns and sedentary lifestyles have been attributed to the increase in childhood obesity. According to the Centers for Disease and Control Prevention (CDC), overweight is defined as a BMI at or above the 85th to 95th percentile for children of the same age and sex. Obesity is defined as a BMI at or above the 95th percentile for children of the same age and sex. With this definition, more than 1 in 7 children ages 6-17 years old are considered obese. The numbers are even more staggering in preschool aged children with 14.6% of preschool aged children being considered obese (Samuels Craypo, Boyle, Crawford, Yancey, & Flores, 2010). Additional criteria and terminology are being developed to describe the very obese and there is no current single standard to represent severe obesity in youth.

Through the analysis of obesity rates, researchers have also observed that obese children are more than likely to become obese adults with increased risks of health implications and related medical costs (Lytle et al., 1996). Harmful effects that may result from obesity include health risks for cardiovascular diseases such as high blood pressure and high cholesterol. High blood sugar levels, also known as glucose, may increase the risk of impaired glucose tolerance and insulin resistance ultimately leading to type 2 diabetes (CDC, 2013). According to the Key Indicators of Health (2013), a study conducted by the Los Angeles County Department of Public Health, 9.3% of the San
Fernando Valley’s population has been diagnosed with diabetes, 23.9% with hypertension and 28.4% with high cholesterol. Though these rates reflect the health status of adults, such statistics present the conditions of potentially obesogenic environments for children who reside in the San Fernando Valley. Family-centered nutrition interventions have noted that children with a BMI over the 99th percentile have a greater likelihood of having comorbidities such as high blood pressure or dyslipidemia and increased risk for type 2 diabetes while potentially negatively affecting every organ system, resulting in the need of some sort of treatment (Taft, Collier & Kolasa, 2012). Increased body mass may lead to joint problems, musculoskeletal discomfort and respiratory issues such as sleep apnea, asthma or other breathing problems. Psychosocial issues stemming from discrimination and poor self-esteem may also be a detrimental factor that can affect children well into their adulthood (CDC, 2013).

Contributing Factors of Childhood Obesity

Dietary Habits

Optimal nutrition is critical for a child’s appropriate growth, immunity, and physical and mental development (Melanson, 2008). Today’s evolved food patterns are comprised of high-energy density foods that have low nutritional value, are served in large portions and revolve around poor eating behaviors based on the patterns of food acceptance and rejection (Darmon & Drewnowski, 2008). Although it has always been thought that eating at home is healthier than eating in fast food establishments or restaurants, studies have found that breakfast is no longer balanced, meals rarely include fruits or vegetables and snacks often replace full meals. Snack choices such as candy, soft drinks, fruit drinks, french fries and pizza have dramatically increased over the past
several decades. These snack choices are high in calories, fat, sugar or salt and usually lack nutrients while providing more calories than actual meals (Roblin, 2007). Data from the Nationwide Food Consumption Survey executed by the USDA indicated that the percent of calories from fat has decreased and the percent from carbohydrates has increased in correlation to the increased obesity rate (Newby, 2007). While the causes of obesity are multi-faceted and complex, poor dietary practices clearly contribute to a child’s potentially obesogenic environment, resulting in excess energy intakes and body weight gain (Darmon & Drewnowski, 2008). Reducing such high calorie yet nutrient dense foods and increasing the amount of fruits and vegetables has become a standard strategy for weight management (Darmon & Drewnowski, 2008).

Parental Influence

Parents are a child’s very first teachers and are key to establishing a home environment that promotes healthy eating and adequate levels of physical activity (Lindsay, Sussner, Kim & Gortmaker, 2006). As a result, a parent’s knowledge of nutrition greatly influences food selection, meal structure, eating patterns, and levels of physical activity. Studies have found that parents, guardians and childcare providers who make healthy foods accessible and serve these foods in a positive mealtime environment help their children develop healthy eating habits (Lindsay et al, 2006). A parent’s weight status can also be a predictor of the child’s future weight status. A study done by Wrotniak, Leonard, Paluch, and Roemmich (2005) demonstrated that the rate of success was significantly greater when the whole family actively worked towards implementing healthy behaviors to improve weight loss. Such healthy behaviors included decreased screen time in front of the TV, computer or video games and limited access to high
calorie, nutrient deficient foods. In a study done by Gillman et al., (2000) results indicated that family meals could be utilized as a tool to provide structure to children’s days and allow for communication between parents and their children. The same study also found that families who ate together had a better quality diet, ate more fruits and vegetables, more fiber, and less fried food, saturated fat and trans fat (Roblin, 2007). Research shows that as of 2009, only 17.1% of adults consume 5+ servings of fruits and vegetables per day and 34.6% of adults are minimally active or inactive (LA County Department of Public Health, 2013). The education of the heads of the households is vital, and recent obesity prevention programs have aimed to help implement behavioral changes that may result in the reduction of childhood obesity.

Socioeconomic Status

Data has revealed that a family’s socioeconomic status and environment have led to health disparities among ethnicities, therefore placing community nutrition at the forefront in health promotion. Researchers have examined epidemiological data and its relation to socioeconomic status, and have found that higher quality diets were associated with greater affluence. An increasing number of research studies have also suggested a strong correlation between low-income levels and over-nutrition, a type of malnutrition that can lead to overweight and obesity (Balistreri & Van Hook, 2011; Vieweg, Johnston, Lanier, Fernandez, & Pandurangi, 2007). According to the U.S. Census Bureau (2011), 22% of American children ages 0 to 17, equivalent to 16.4 million children, lived in poverty in 2010. This paradox that links poverty to obesity can be explained by poor dietary quality among poor communities, one that is high in calories yet nutritionally empty. The United States Department of Agriculture reported that purchasing healthier
foods that are more nutritious could cost up to 35-40% more than the average American low-income family’s food budget. As a result, energy dense diets that are poor in nutrition were preferred by those from a lower socioeconomic status and of more limited economic means (Darmon and Drewnowski, 2008).

Causal mechanisms that have been attributed to an obesogenic environment include lack of access to grocery stores, transportation, and neighborhood safety, as well as language and cultural barriers (Roblin, 2007). Such mechanisms may result in inequalities for access to health foods or community resources for increased physical activity. A statement released by the CDC declared that all children regardless of ethnic background and genetic variances have similar growth potential when provided with adequate nutrition, access to health care, and social and living conditions (Iriart et al., 2011). Unfortunately, this is not the case for all children. Researchers have hypothesized that residents from low-income neighborhoods are disproportionately affected by increased rates of health-related diseases and outcomes due to such inequalities (Roblin, 2007).

Many low-income neighborhoods have now been referred to as “food deserts” (Darmon and Drewnowski, 2008) that are poverty-stricken urban areas, where residents cannot buy affordable, healthy foods (Cummins and Macintyre, 2002). Studies have found that immigrants and ethnic minorities in particular are at risk due to difficult adaptation to prevailing food patterns and language barriers. Results demonstrated that children of immigrant families were at a higher risk for overweight and obesity than their non-immigrant peers (Aranceta, 2003). Acculturation was found to be a significant moderating variable between food insecurity and BMI percentiles in children of Latino
immigrants (Buscemi, Beech, & Relyea, 2011). Similarly, other studies have recommended the implementation of culturally diverse nutrition education that is applicable to Latino traditions and catered to their preferences. According to a study done by James et al. (2008), intervention programs that target Latino children need to ask for recommendations from Latinos and incorporate the information into the program. Focus groups have also been found to provide valuable insight into family members’ values, beliefs, and preferences for assistance.

Healthy Lifestyles Classes as an Intervention Strategy

A number of obesity prevention programs have been implemented utilizing at least one of the following components: dietary changes, physical activity, social and behavioral modifications and collective participation on behalf of the family (Roblin, 2007). Such multifaceted programs have been created in order to tackle a problem as complex as childhood obesity. Childhood is the most important learning period through which the foundations of all behavioral habits are developed and strengthened (Wagner, Meusel & Kirch, 2005). Interaction on behalf of parents and their respective health habits have been considered the primary type of nutrition education followed by schools, which act as a secondary sphere for living and learning. The American Dietetic Association released a statement in support of family and school-based programs to promote increased levels of physical activity, parent/training modeling, behavioral counseling and nutrition education, especially for children between the ages of 5 to 12 (American Dietetic Association, 2006). However, there has been limited systematic follow-up evaluations of the effectiveness of such programs in changing families’ nutrition and
fitness habits after the completion of programs (Story, 1999; Gonzalez-Suarez, Worley, Grimmer-Somers, & Dones, 2009).

The Institute of Medicine has also expressed recommendations on strategies to improve childhood obesity prevention programs by calling for a long term program that follows up with participants with the involvement of a multidisciplinary approach to help families continue practicing what they learned (Institute of Medicine, 2007). In response, the development of partnerships between schools and community agencies to provide family-based interventions has been suggested (Evans et al., 2011). A qualitative study assessed obesity-related concerns of Hispanic, Black, and White parents of children in North Carolina and asked what challenges deterred them from implementing healthy lifestyles in their household. Participants shared challenges at multiple levels of influences, such as the lack of time to help their children develop healthy habits due to conflicting family priorities and the parents’ inability to act as role models because of their own unhealthy diet and activity preferences (Styles, Meier, Sutherland & Campbell, 2007). The parents also shared that integrating physician and community support and education would help promote the implementation of healthier lifestyle changes for the whole family.

A nutrition program called The Expanded Food and Nutrition Education Program (EFNEP) sponsored by the United States Department of Agriculture, provided food and nutrition education to low-income families associated with high rates of obesity in Houston, Texas. The program educated mothers on basic nutrition information, adequate portion sizes and smart shopping throughout four weekly sessions, and followed up with them after a four-month period. Results indicated significant improvement in parental
self-efficacy for meal planning, shopping skills and encouraged a higher consumption of fiber, fruits and vegetables. Qualitative results indicated that mothers stated the program helped create a healthier home food environment for themselves and their families (Cullen et al., 2010). Buscemi et al. (2011) suggested that it is essential to understand the barriers and facilitators of obesity in these populations. The study focused on acculturation, or the process of adjusting to the American culture, as a moderator of obesity. Parental acculturation in the immigrant group was measured based on language use, media, and ethnic social relations. Results showed that children of immigrant families were at higher risk for overweight and obesity than their non-immigrant peers. Acculturation was found to be a significant moderating variable between food insecurity and BMI percentile in children of Latino immigrants (Buscemi et al., 2011).

Curriculum

Although research in the area of childhood obesity prevention is limited, studies have shown that an intervention that combines exercise, behavioral changes that include a decrease in sedentary activities, social support, nutrition education, and parental support are vital components of effective programs (James et al., 2008). A conceptual model used to describe a familial approach to the treatment of childhood obesity, as described by Golan and Weizman (2001) states that a family-based and health-centered focus brings about environmental change in the parents’ lifestyle, parenting practices and way of thinking. Since the parents are the main change agents, the family and home environment are major factors affecting a child’s food and activity habits. Parents learn to bring about change by modeling healthy lifestyle behaviors, by influencing environmental change, and by promoting healthy habits in their children (James et al., 2008). The model
ments increased nutrition and health skills to create environments for healthy habits and increase parenting skills to effectively implement lifestyle changes for the family as a whole. In order to increase the influence of parents, the model suggests that parents learn to purchase healthy foods by reading food labels, provide companionship at meal times, prepare healthy balanced foods and meals, select lower fat higher fiber foods, select appropriate serving sizes and exercise regularly (James et al., 2008).

Parents can create an environment for healthy habits by teaching their children to eat at regular meal times, schedule snacks between meals, allocate individual portions, provide alternative leisure time activities, create opportunity for physical activities and reduce stimulus for over-eating. Increased parenting skills include the abilities to lead by example to increase physical activity, promote parent-child effective communication and provide tips to build a positive family environment for eating (Golan & Weizman, 2001). Similarly, the Journal of School Health (1997) also states that the attitudes and behaviors of parents and caretakers directly influence and control children’s and adolescents’ choice of food choices available at home, therefore such healthy lifestyle changes may be one of the most effective ways to change their children’s eating behaviors.

Physical Activity – Zumba

Lack of physical activity and sedentary lifestyles have been attributed to obesity in children and adults alike (Dugan, 2008). As a result, many childhood obesity prevention programs have educated participants about the health benefits and overall healthy habits derived from adequate levels of exercise. Weight status is dependent on the energy consumed versus energy burned or utilized by the body. As a result, physical
activity is a modifiable component that directly impacts the physiological functions related to fat and glucose metabolism, increasing skeletal muscle mass, improving insulin sensitivity and a reducing risk of cardiovascular diseases (Dugan, 2008). A common issue mentioned in many articles centered on childhood obesity prevention is the lack of physical activity and its link to increased rates of comorbidities. According to an article by Blankenship and Heidorn (2012), this issue may be addressed with an increased interest in a new concept, such as exercise, with an increased motivation to learn and apply the concept. In that respect, the implementation of popular group fitness such as Zumba may keep participants intrigued and motivated to increase levels of physical activity. Zumba is a Latin-inspired workout that incorporates basic principles of aerobic, interval and resistance training to maximize calorie output, cardiovascular benefits and total body toning (Zumba Fitness Instructor Training Manual, 2011).

When Zumba enthusiasts were asked about what they enjoyed about the class, most agreed that the music, fun dance moves and dynamic environment made the experience enjoyable. A recent study examined the average exercise intensity and energy expenditure for a single Zumba fitness class through which the participants’ heart rate and oxygen consumption were measured and analyzed (Luettgen, Foster, Doberstein, Mikat, & Porcari, 2012). Results indicated that the average heart rate fell between the recommended guidelines sufficient to increase aerobic capacity. Although many confounding factors affect the average caloric expenditure for a Zumba fitness class, this type of exercise has been proven to be a favored method of physical activity and additional research should be warranted through its implementation (Luettgen et al., 2012).
Food Demos and Interactive Games

Experiential activities such as games, food demonstrations and samples are designed to enhance skills and efficacy by offering participants interactive opportunities to taste new foods to educate that healthy food is not only beneficial, but also delicious (Chaudhary & Kreiger, 2007). Food demonstrations have been found to emphasize social interaction and hands-on experiences, which also provide added benefits of support in a group setting, food skills development and food sensory evaluation. Programs that have utilized such activities have been found to increase vegetable and fruit intake among low-income adults (Chaudhary & Kreiger, 2007). Food tastings have especially been considered a useful tool when introducing new foods to which certain cultures may not be accustomed and may therefore lead to the incorporation of new foods into the diet of their families. According to an article by Eliassen and Wilson (2007), eating is usually a pleasurable experience, and the incorporation of food tasting into lessons or programs enhances the impact of the message by integrating visual, olfactory, and tactile senses. Games have also proven to keep participants interested and motivated to learn more about nutrition. Nutrition Jeopardy in particular can be adapted to a variety of audiences by changing the categories and questions to specialize it for the intended audience (Burns, Benoit & Bulvan, 2002). Strategies that address literacy, accessibility and skill levels as an integral part of the intervention have found that interactive and tactile activities help the participant better decode and understand the material (Chaudhary & Krieger, 2007).

As the literature suggests, childhood obesity stems from many issues including dietary trends, environmental influences and socioeconomic status. In order to create methods of prevention, a multisystematic approach that encompasses nutrition education,
physical activity and hands-on lessons are needed to create environments for healthy habits and increase parenting skills to effectively implement lifestyle changes for the family as a whole. Thus, research suggests that nutrition and physical activity interventions specifically aimed towards the intended audiences tend to be delivered in a culturally-sensitive and learner-centered manner in order to promote the implementation into their own homes and lifestyles. Strategies to improve childhood obesity prevention programs also call for a long-term program that follows up with participants to help families continue practicing what they learned.
CHAPTER III

METHODOLOGY

A Taste of Good Health (ATOGH)

Health education for parents is a vital component of any nutrition program that may help reduce childhood obesity rates and initiate healthy behavioral changes for the family as a whole. ATOGH was a five-week school-based parent nutrition education program that consisted of three components that included a lesson on nutrition education in a classroom setting, physical activity and a food demonstration. A similar program was developed for the School-based Obesity and Diabetes Initiative (SODI) nutrition program, which was then adapted in order to help participants understand how to make healthier choices about one’s dietary intake and level of physical activity. The curriculum included lessons on MyPlate, portion control, reading food labels, the importance of adequate fruit and vegetable intake, dining out and smart shopping tips. Lesson plans also included information regarding health related conditions such as diabetes, hypertension and dyslipidemia. Participants were asked to provide feedback on what they thought was the most useful and least useful about the program during the debriefment session for Week 4, which was then implemented in the curriculum for the follow-up session at Week 12.

Participants

A Taste of Good Health was developed and implemented for the School-based Obesity and Diabetes Initiative (SODI), which is a program of the Center for Healthier Communities (CHC) of Northridge Hospital Medical Center (NHMC). This alliance focused on reducing childhood obesity and diabetes through SODI in partnership with the
CSUN Dietetic Internship. The parent education component, called “A Taste of Good Health” was implemented in 5 Los Angeles Unified School District elementary schools located in the following areas of the San Fernando Valley: Granada Hills, Panorama, Canoga Park, Northridge and Reseda. The program was implemented from August 28, 2012 until November 29, 2012. The program was open to all cultural backgrounds, though the majority of the participants were Latino. The preferred language was primarily Spanish, therefore all lessons and materials were offered in the Spanish language. Participants were recruited with the assistance of a school site staff member or parent center coordinator. A total of 202 participants started the program; 149 participants attended Week 4 and 96 participants attended the Week 12 follow-up session.

Curriculum Design

Information gathered from a review of the literature and pre-existent nutrition program curriculum provided a framework for the content and structure of the workshops. The majority of program materials and handouts were adapted from nutrition education resources from the Northeast Valley Health Corporation WIC Program, The Dairy Council and the Academy of Nutrition and Dietetics, which were also provided in handouts as incentives for the participants. The five-week curriculum for ATOGH was a 2-hour long class comprised of a nutrition lesson for 60-80 minutes, Zumba group exercise for 20-30 minutes and a food demonstration for about 10-20 minutes. Incentives such as the WIC cookbook titled *Let’s Cook With Kids/ Vamos a Cocinar con los Niños, Quick and Healthy Recipes* (Appendix H) were provided to those who attended at least 3 or more classes by Week 4. Those who returned for the follow-up session at Week 12
were again given incentive gifts that included recipes, cookbooks and gift cards in appreciation of their attendance and involvement throughout the program. Given that Zumba is a growing and popular physical activity (Luetjgen et al., 2012), Zumba group exercise was chosen as an additional incentive to help prevent participant dropout rates. All lessons were presented by a Registered Dietitian and displayed on PowerPoint slides with the use of a projector. The lessons included the following topics:

<table>
<thead>
<tr>
<th>Week</th>
<th>Curriculum Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Introduction to MyPlate, Portion Control, Water Consumption and Exercise</td>
</tr>
<tr>
<td>2</td>
<td>Reading Food Labels, Fruits, Vegetables and Dairy</td>
</tr>
<tr>
<td>3</td>
<td>Carbohydrates, Protein, Fat and Health-Related Conditions</td>
</tr>
<tr>
<td>4</td>
<td>Review &amp; Tips on Dining Out, Shopping Smart and Holiday Eating</td>
</tr>
</tbody>
</table>

The first week (baseline) began with the collection of anthropometric measurements while the participants answered a pre-test. Introductions were made on behalf of the instructor, volunteers and participants and a brief verbal nutrition knowledge assessment was also discussed to gauge pre-existing knowledge. The lesson began with the 2010 Dietary Guidelines for Americans utilizing MyPlate and daily intake recommendations of the grain, fruit, vegetable, dairy and protein food groups. Food models and common objects were utilized to visually display accurate portions to estimate accurate sizes (example: the size of one’s fist= 1 cup, tennis ball= 1 small fruit). Adequate water consumption and physical activity recommendations were also covered as a segway to the Zumba group exercise. A waiver release (Appendix B) was signed to absolve any injury that may have occurred throughout the physical activity. Zumba was
taught at a basic level by the Registered Dietitian, who was also certified as a Zumba instructor. Soon after, the participants were allowed to cool down before the food demonstration that featured the Garbanzo, Feta and Tomato Salad from the Quick and Healthy Recipes (Appendix H). Every week thereafter began with a short summary of the lessons from the previous week and the participants were also asked if anyone had implemented what they had learned from that lesson.

The second week focused on reading food labels to help make healthier choices while grocery shopping. Empty packages of common foods were utilized and passed around the class so that the parents could work as groups to decode the labels. A Nutrition Facts Label handout was provided as a helpful guide for future reference. In addition, the daily recommended intake of fruits and vegetables was introduced, as well as the health benefits of soluble and insoluble dietary fiber. As the discussion continued about the health benefits of fresh produce, the issue of organic versus non-organic also arose. In response to this concern, The Shopper’s Guide to Pesticides in Produce recommendations which distinguish “the Clean 15” and “Dirty Dozen” fruits and vegetables (Environmental Working Group, 2013) were also discussed to help clarify the stigma that organic doesn’t necessarily mean healthier. Lastly, the daily-recommended intakes, health benefits and food sources of calcium and vitamin D were also discussed. Key consumer messages distinguished the differences among whole, low fat and nonfat milk and also presented alternatives for those who were lactose intolerant. The lesson concluded with a second Zumba lesson that was slightly more vigorous than the first lesson and a food demonstration that featured Black Bean and Quinoa Salad (Appendix H).
The third week again began with a review from the second week’s lesson and the researcher asked if the participants had implemented anything they had learned from that lesson. The third lesson focused on carbohydrates, protein, fats and related diseases such as diabetes, hypertension and dyslipidemia. Carbohydrate sources were defined, while the pathophysiology and methods of prevention of diabetes were also introduced. Fats were differentiated between saturated and unsaturated, as well as linked to adverse health effects such as dyslipidemia and hypertension. Sources of protein were named and described as building blocks needed for bodily maintenance and the health risks related with protein deficiency or over-consumption were also discussed. In order to assess the participants’ nutrition knowledge thus far, a Jeopardy Review was implemented by separating the class into two teams. The Jeopardy questions (Appendix D) were comprised of a review from the first 3 nutrition lessons and utilized a Jeopardy wheel with points ranging from 100-500. As the questions were asked, the class was also prompted into a discussion related to the answer. The class culminated with another Zumba lesson and food demonstration that featured the Apple and Yogurt Salad (Appendix H).

The fourth and last lesson covered tips on how to choose healthy alternatives when dining out, grocery shopping or holiday eating. Shopping Smart recommendations focused on the use of coupons, sales, price comparison and the purchase of seasonal produce. Dining out recommendations focused on increasing the intake of fruits and vegetables, reducing the consumption of fried foods and sharing meals to avoid eating very large portions. Holiday or special event eating focused on ideas for healthy dish recipes and limiting alcohol consumption. The participants were then debriefed with a
specific set of questions and all responses were annotated by two notetakers who translated from Spanish to English. Lastly, participants were asked to bring a healthy dish for a potluck where all the parents discussed why their dish was healthy or if they substituted any ingredients to make it a healthier recipe. Those who attended three or more of the lessons were presented with a certificate of completion and incentive gifts.

The fifth and final session, which was held 12 weeks after the initial session, was held to conduct a follow-up session and provide additional information that had been requested during previous sessions. The participants were placed in two groups for the last Jeopardy Review that was based on the entire curriculum from the nutrition classes (Appendix G). They were again debriefed with a specific set of questions and all responses were annotated by two trained notetakers who translated from Spanish to English. The class concluded with an extended Zumba lesson that included everyone’s preferred routines. Afterwards the participants were awarded their incentive gifts in an official ATOGH goodie bag filled with nutrition handouts provided by the Dairy Council, handouts that had been created with all of the available Farmer’s Markets in the area (Appendix E), healthier ingredient alternatives for cooking in the Healthier Options handout (Appendix F) and another $5.00 gift card in appreciation of their attendance and involvement in the program. The final class culminated with the last food demonstration that featured the Edamame Salad served with whole grain crackers (Appendix H).

Descriptive Analysis

In order to assess the degree of influence that the nutrition curriculum and Zumba group exercises had on the participants, a series of specific debriefing questions were asked at the end of the lesson for Week 4. All responses were recorded by trained
notetakers who translated all information from Spanish to English. The following questions were asked at Week 4:

<table>
<thead>
<tr>
<th>Week 4/ Post-Test</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Nutrition Class</strong></td>
</tr>
<tr>
<td>1. How can the program be changed/ improved to be more helpful to you?</td>
</tr>
<tr>
<td>2. Which parts of the program were most useful?</td>
</tr>
<tr>
<td>3. Which parts of the program were least useful?</td>
</tr>
<tr>
<td><strong>Exercise: Zumba</strong></td>
</tr>
<tr>
<td>1. Was this class your first time doing Zumba?</td>
</tr>
<tr>
<td>2. What did you like about the Zumba? Dislike?</td>
</tr>
<tr>
<td>3. Did you feel that the moves were too difficult? Too easy?</td>
</tr>
<tr>
<td>4. What other type of physical activity/ exercise would you like to learn as part of the physical activity component of the TOGH classes?</td>
</tr>
</tbody>
</table>

During Week 5, 12 weeks after the first session, the class again reconvened to obtain feedback about any lifestyle changes the participants had made after the program. Requests for more nutrition information, additional recipes and resources were provided during Week 12.
CHAPTER IV

RESULTS

Discussion of Results

The purpose of this project was to design and evaluate an interactive yet engaging curriculum on basic nutrition principles and introductory Zumba classes to positively influence healthy lifestyles among parents of the 5 LAUSD elementary schools. A qualitative analysis was conducted by asking open-ended questions and collecting verbal feedback to analyze the effectiveness and usefulness of the ATOGH lessons. A total of 202 participants started the program, and 149 parents were present at Week 4. Results were collected during the debriefing sessions at Week 4. Results were collected from all 5 elementary schools and analyzed together to identify common themes stated among all participants. The results were transcribed and coded for themes.

Table 1. Themes Mentioned by Participants on How the Program could be Changed or Improved

<table>
<thead>
<tr>
<th>Themes at Week 4</th>
<th>Haskell</th>
<th>Napa</th>
<th>Alta</th>
<th>Hart</th>
<th>Cantara</th>
<th>% Mentioned Theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>Longer Zumba lessons</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>100%</td>
</tr>
<tr>
<td>Learning how to read food labels</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>80%</td>
</tr>
<tr>
<td>More recipes</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>60%</td>
</tr>
<tr>
<td>More classes</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>60%</td>
</tr>
<tr>
<td>Classes on diabetes, cardiovascular diseases, cholesterol, high blood pressure</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>60%</td>
</tr>
<tr>
<td>Include children</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>40%</td>
</tr>
<tr>
<td>Lesson information packet/handouts</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>40%</td>
</tr>
<tr>
<td>Eating schedule</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>40%</td>
</tr>
<tr>
<td>Limit participants distractions (i.e., assistance with surveys, daycare, anthropometric measurements taken separate day)</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>40%</td>
</tr>
<tr>
<td>Nutrition at different life stages</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>20%</td>
</tr>
<tr>
<td>Translation from English to Spanish &amp; vice versa</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>20%</td>
</tr>
<tr>
<td>Learn how to interpret body fat %</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>20%</td>
</tr>
</tbody>
</table>
Participants in all five schools recommended longer Zumba lessons, 4 out of 5 schools mentioned they would like more practice reading food labels, while 3 out of 5 stated that more recipes, information about portion sizes and classes in general would help improve the curriculum. The following suggestions were recommended from 2 out of 5 schools as ideas for future lessons: additional handouts or informational flyers for that day’s lesson, limiting the amount of questionnaires to be filled out, and including the children in a class. Other suggestions included providing nutrition information for different life stages, weight maintenance tips, informational sessions with athletic trainers on tips to lose weight, one-on-one counseling sessions with follow-ups or how to utilize certain foods to aid with specific health conditions.

Table 2. Which parts of the program were most useful?

<table>
<thead>
<tr>
<th>Themes at Week 4</th>
<th>Haskell</th>
<th>Napa</th>
<th>Alta</th>
<th>Hart</th>
<th>Cantara</th>
<th>% Mentioned Theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning about portion sizes</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>60%</td>
</tr>
<tr>
<td>Instructor’s (Xochitl’s) teaching style</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>40%</td>
</tr>
<tr>
<td>Learning sources of specific vitamins &amp; minerals (i.e., calcium and vitamin D)</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>20%</td>
</tr>
</tbody>
</table>
When asked what part of the program was the most useful, 3 out of 5 schools agreed that learning about portion sizes was the most useful, while the instructor’s teaching style was also helpful in understanding the information. Participants also found the information about food sources for certain nutrients, the importance of exercise and its role in disease prevention, utilizing MyPlate as a tool for healthy eating, ingredient modifications for healthier recipes and learning the importance of balance and moderation as interesting information that helped ease their transition into healthier lifestyles.

When asked what part of the program was not useful or unnecessary, participants in all of the school sites agreed that all information throughout the program was beneficial and should continue to be taught in the future. One to two parents expressed their concerns and stated that simpler terms should be used when explaining health

<table>
<thead>
<tr>
<th>Themes at Week 4</th>
<th>Schools</th>
<th>% Mentioned</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Haskell</td>
<td>Napa</td>
</tr>
<tr>
<td>Everything was useful</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Would like explanation of material in simpler terms*</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Would like information to be presented in ways that is applicable to their life*</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

*Stated by 1-2 parents and most parents disagreed
terminology and that real life scenarios should be presented to further explain nutrition-themed topics.

Table 4. Zumba and physical activity-related questions.

<table>
<thead>
<tr>
<th>Themes at Week 4 Debriefment</th>
<th>Haskell</th>
<th>Napa</th>
<th>Alta</th>
<th>Hart</th>
<th>Cantara</th>
<th>% Mentioned Theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liked Zumba</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>100%</td>
</tr>
<tr>
<td>Want yoga</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>100%</td>
</tr>
<tr>
<td>Want longer Zumba classes</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>100%</td>
</tr>
<tr>
<td>Thought Zumba routine was easy and want more difficult routine</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>80%</td>
</tr>
<tr>
<td>Want aerobics</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>80%</td>
</tr>
<tr>
<td>Want pilates</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>40%</td>
</tr>
<tr>
<td>Want Meditation</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>40%</td>
</tr>
<tr>
<td>Want kickboxing</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>60%</td>
</tr>
<tr>
<td>Want abdominal workouts</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>20%</td>
</tr>
<tr>
<td>Want personal defense</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>20%</td>
</tr>
<tr>
<td>Want soccer and basketball</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>20%</td>
</tr>
</tbody>
</table>

Participants from all school sites agreed that the Zumba group exercise was one of their favorite components of the class. Many even asked for longer classes with more difficult routines. When asked which other physical activities they would like to learn, they mentioned yoga, kickboxing, aerobics, pilates, abdominal workouts and meditation exercises. The intermediary rest-period between Week 4 and 12 was included to address the lack of systematic follow up evaluations as noted in previous studies (Story, 1999; Gonzalez-Suarez, Worley, Grimmer-Somers, & Dones, 2009).

Although only approximately 50% of the participants returned for the follow-up session, results displayed a positive effect as explained by the participants themselves. Recommendations and suggestions that the participants had made during the debriefing sessions were applied to the curriculum for Week 12. More recipes, nutrition information handouts and a longer Zumba lesson were featured that were incorporated to the lesson plan for the follow-up session. The assigned notetakers also recorded testimonials from
the participants for Week 4. Many participants said that they had applied the information they had learned from the class with their families. One participant commented, “I really love this program and I wish you could have it more often and we can have you guys around and we could learn more stuff because I have learned a lot from you guys of the salads, you gave us some booklets where you had recipes and it was good” (Appendix K). Another mom commented, “We check our caloric consumption and the nutrition food labels. We are also fixing the way we nourish ourselves by adding more fruits and vegetables, less fats and sugar (into our diet) and including more exercise like walking more and using our car less” (Appendix I). Although the participants’ responses from Week 12 were annotated (Appendix I), their behavioral changes were not assessed in order to focus on evaluative methods for the program and curriculum itself.

Program Outcomes

• Provided a 4-week curriculum that included nutrition education, physical activity and food demonstrations for 5 LAUSD schools.

• The participants themselves mentioned an increase in nutrition knowledge and health awareness during debriefing sessions at week 4.

• Participants shared that all aspects of the ATOGH curriculum were helpful, and shared recommendations to modify and improve the curriculum for future implementation.

• As suggested by the participants, curriculum for the follow-up session at week 12 was revised; additional nutrition information was provided and the Zumba lesson was extended.
CHAPTER V
DISCUSSION

This project is a 4-week program comprised of nutrition education, physical activity and food demonstrations for parents from five LAUSD elementary schools located in the San Fernando Valley. The purpose of this project was to design an interactive yet engaging curriculum on basic nutrition principles and introductory Zumba classes to positively influence healthy lifestyles. This program was implemented with hope that such learned behaviors are shared in the participants’ households, which may then directly affect their children’s health status. Specifically, this project was designed to follow-up with participants’ perceptions, feedback and suggestions about the program. The strengths and areas of improvement for the curriculum were qualitatively assessed through the use of open-ended questions during a debriefing session.

Discussion of the Findings

Results from the Week 4 debriefing session stated that participants found all sections from the curriculum to be beneficial. Participants from all schools also stated that they enjoyed the Zumba lessons, though they suggested longer more advanced sessions and recommended more informational handouts on nutrition and healthy recipes. One of the initial concerns during the development of the program was the challenge to both recruit and retain parent participants throughout the 5 weeks. In reality, class sizes varied from 15 to 60 participants, which proved there was great interest in the class itself and the pursuit of healthier lifestyles on behalf of the participants. The program revealed parents were generally happy with the format, content, and delivery of the program; however, they expressed an interest in having more action-oriented sessions where the
children were also involved. The debriefment sessions at Week 4 provided valuable insight into family members’ values, beliefs, and preferences, which according to a study done by Buscemi, Beech & Relyea (2011) would greatly improve the quality of obesity prevention efforts aimed towards Latino families. Buscemi et al. also reinforced the importance of developing well-designed interventions that specifically target the intended audience and intended outcomes (2011). Considering that few studies have addressed childhood obesity prevention programs for Latino families with a follow-up component (Story, 1999; Gonzalez-Suarez, Worley, Grimmer-Somers, & Dones, 2009), this project is one of the few that have examined the potential and value of nutrition-focused intervention targeting predominantly Latino populations with the potential goal of impacting the family as a whole.

As for the physical activity component, many parents declared that the Zumba physical activity is what set ATOGH apart from other programs, and that they would look forward to learning more Zumba routines. According to an article by Blankenship and Heidorn (2012), increasing physical activity levels can be addressed with an increased interest in a new concept, such as Zumba, with an increased motivation to learn and apply the concept. In that respect, the implementation of Zumba helped keep participants intrigued and motivated to increase levels of physical activity. Participants recommended longer, more difficult Zumba sessions, which revealed that it was one of the preferred aspects of the curriculum. The involvement on behalf of the school’s Parent Center Coordinators and ATOGH volunteers helped in keeping parents motivated to continue attending the program.
All lessons from the curriculum were simplified and implemented at an easy to understand level. Information was translated to Spanish in order to accommodate the majority of the participants. The goal was to create an engaging yet enjoyable curriculum that would keep participants entertained, thereby increasing satisfaction and involvement on their behalf. This was especially evident by the amount of questions and feedback received at most of the classes and activities such as the Jeopardy games. Nutrition Jeopardy helped initiate teamwork and promoted discussion, which helped avoid the tedium of redundant lectures. The interactive aspect of the curriculum agrees with a study done by Chaudhary & Krieger (2007), which states that experiential activities such as games, food demonstrations and samples can enhance skills and efficacy to help participants better decode and understand the information. Debriefing results suggest that the culturally sensitive and learner-centered approach interventions were integral components of the ATOGH curriculum.

Participants also indicated numerous significant positive behavior changes after having participated in the ATOGH program. Although it had been weeks since the fourth class, many participants declared that they were still implementing what they had learned from the classes. Participants were invited to come back for the follow-up session, especially if they were in need of alternative methods that may help improve success. Similarly, the Expanded Food and Nutrition Education Program (EFNEP) also featured a follow-up session, which resulted in overall improvement in parental self-efficacy for meal planning, shopping skills and healthier eating (Culen et al., 2010). According to a study done by Darmon & Drewnowski (2008), socioeconomic status greatly affects shopping abilities where those with limited means were more likely to consume energy
dense diets that are poor in nutrition. Although income levels were not assessed as part of this project, participants did express financial struggles as a deterrent from maintaining a balanced diet because they assumed that “eating healthy is expensive.” Many also expressed the reality of living in an area where fast food restaurants are everywhere, yet Farmer’s Markets are far away from their residence. As a result, information about local Farmer’s Markets, coupons, buying in bulk, price comparison and the purchase of seasonal produce were all provided to help participants learn how to grocery shop on a budget.

Implications for Future Studies

As this was the first ATOGH program to be implemented, it was determined that the curriculum has various areas in need of improvement and modification for future implementation. One of the issues that was found during implementation was during one of the first classes which was originally meant to be taught in English. Once the class had begun, many participants shared that they preferred the class be taught in Spanish. The class then became bilingual which took more time and frustrated many participants. As a result, the classes were only given in one language, which deterred many participants from returning. Future implementations of similar multifaceted nutrition programs that include culturally sensitive and appropriate materials are strongly suggested. Another possible area of improvement suggested by participants is to have a handout with the main points from that day’s class so that they could save the information for future reference. Also, many participants expressed that they would prefer one of the classes to include their children so that they could learn together as a family. Studies have shown
that the rate of success is significantly greater when the whole family actively worked towards practicing healthy behaviors to implement healthy habits (Lindsey et al., 2006).

Due to time constraints, the food demonstrations were pre-made and merely assembled and served at the school sites. Future sessions should focus more on how to make different recipes and share health benefits provided by the ingredients. A study by Eliasson and Wilson (2007) stated that food tastings are considered a useful tool when introducing new foods to which certain cultures may not be accustomed and may therefore lead to the incorporation of new foods into family diets. Incorporating such demonstrations also enhanced the impact of the ATOGH message to eat healthier and try new foods by integrating visual, olfactory and tactile senses. New foods that were introduced included edamame, quinoa and feta cheese; which most participants greatly enjoyed.

Three out of 5 school sites shared that they would have liked more nutrition classes and follow-up sessions added to the curriculum, instead of the initial 5 weeks. This supports the study conducted by the Institute of Medicine, which stated that a long-term program that would follow-up with participants more frequently and utilize a multidisciplinary approach might help families continue to implement healthier lifestyles in the long term (Institute of Medicine, 2007). Lastly, the assessment of anthropometric measurements (height, weight, BMI, Body Fat %) and changes in health behavior throughout the program up until the follow-up sessions would greatly strengthen the validity and effectiveness of the nutrition program. The analysis of such data may help strengthen future research studies whose focus is to prevent childhood obesity and promote long-term health awareness.
Conclusion

A Taste of Good Health is a school-based healthy lifestyle curriculum and program evaluation aimed to help reduce childhood obesity with three components: nutrition lessons, physical activity and food demonstrations. The overall purpose and goals for this graduate project were to educate and empower participants about healthy lifestyle changes, basic health knowledge and increase physical activity levels and evaluate the curriculum. The ATOGH program incorporated evaluative methods by means of debriefing sessions where the participants themselves stated which aspects of the program were the most useful or least useful, and provided recommendations to improve the curriculum for future implementation. Based on the results, ATOGH helped improve nutrition knowledge, physical activity levels, and also provided recommendations for curriculum improvement as stated by the participants themselves. Obtaining feedback from participants and providing them with needed resources are important aspects of nutrition programs in order to customize the curriculum for the appropriate audience. Future implementations of similar multifaceted nutrition programs that include culturally sensitive and appropriate materials are strongly suggested. Future research is also needed to address the need for an increased amount of follow-up sessions, customized curricula for various populations in other languages and overall program evaluation.
References


APPENDIX A

English Curriculum

Lesson Plan:

Week 1 – Introduction to My Plate, Portion Control, Water Consumption & Exercise

Objectives: By the end of this class, students will be able to:
1. Describe the different food groups included in My Plate.
2. Describe ways to identify portions with their hands/ common objects.
3. Identify the amount of water that the average adult should consume daily.
4. List at least two reasons why exercise is important for good health.

Teacher Introduction (3-5 min)
Teachers will introduce themselves to the class:
- Name, Educational Background, Current Educational/Professional Status (i.e. CSUN Intern)
- Briefly go over TOGH (what it stands for, goals for program, etc.)
- Discuss what is going to happen over the next four weeks (i.e. course lectures, activities, physical activity, etc.)

Activity/ Method of Evaluation (20 min)
- Collect Anthropometric Data (height, weight, BMI, % body fat)
- Pass out FFQ/ Pre-test

Class Introduction (10 min)
Participants will briefly introduce themselves to the class:
Name? Any children? What they hope to get out of this 4 week course?
Teacher will briefly overview what topics will be discussed today:
- MyPlate
- Portion Control
- Water Consumption
- Exercise Needs

Nutrition Lesson: Introduction to MyPlate (60 min)
2010 Dietary Guidelines for Americans- What have you heard about My Plate?
About My Plate:
- Developed by the U.S. Department of Agriculture’s Center for Nutrition Policy and Promotion
- Created to promote healthy eating, based on 2010 Dietary Guidelines for Americans.
- These are basic guidelines for healthy eating that are updated every 5 years by the U.S. Department of Agriculture and Health & Human Services.

• Food Groups in My Plate (Key Consumer Messages)
  - Grains: Make at least half your grains whole.
    Choose 100% whole-grain cereals, breads, crackers, rice, and pasta.
    Check the ingredients list on food packages to find whole-grain foods
  - Vegetables: Vary your veggies!
    Eat red, orange, and dark-green vegetables, such as tomatoes, sweet potatoes, and broccoli, in main and side dishes
  - Fruit: Try new fruits!
Eat fruit, vegetables, or unsalted nuts as snacks—they are nature’s original fast foods

- **Dairy:** Switch to skim or 1% milk.
  Have the same amount of calcium and other essential nutrients as whole milk with less fat and calories.
  Get your calcium-rich foods: Try calcium-fortified soy products as an alternative to dairy foods

- **Protein:** Vary your protein food choices.
  Twice a week, make seafood the protein on your plate.
  Eat beans, which are a natural source of fiber and protein.
  Go lean with protein: keep meat and poultry portions small and lean.

**Portion Control**

For many people, understanding and applying the appropriate portions to an individual’s plate is very difficult, especially when there are no measuring utensils around to measure out each item onto the plate.

- **Recommended Daily Amounts from each Food Group:**
  The amount of food eaten from each food group depends on your age, sex, and level of physical activity. Although, the recommended daily intake amounts for men and women range as follows:
  
  1. Grains – 5 oz to 8 ounces
  2. Vegetables – 2 to 3 cups
  3. Fruits – 1 ½ to 2 cups
  4. Dairy – 3 cups
  5. Protein Foods – 5 to 6 ounces
  6. Oils – 5 to 7 teaspoons (daily allowance, not needed)

- **Portion Sizes (using your hands/other objects)**
  These are some helpful tips in using your hands and other objects to estimate how much food you’re consuming, in comparison to your daily needed amounts:
  
  - Your thumb tip/fingertip = 1 teaspoon
  - Your fist = 1 cup
  - Your thumb = 1 ounce of cheese
  - Hand full = about 1 to 2 ounces
  - Palm of your hand = about 3 ounces of meat
  - Tennis ball = 1 fruit

- **Portion Plate (Demonstrate MyPlate visual aid/ and pass out MyPlate handout)**
  When making your plate you should aim for:
  
  - ½ of the plate should be from fruits or vegetables
  - ¼ of plate should be from whole grains
  - ¼ of plate or less should be from lean meat or a protein

- **Tips to help with Portion Control**
  1. Eat your meals on a smaller plate
  2. Make half your plate fruits and vegetables
  3. Stop eating when you are satisfied, not full.
  4. Eat three well-rounded meals
  5. Don’t take entire bags of chips or whole tubs of ice cream to the couch
  6. Don’t be tempted to go for the “extra-large” value meal
  7. Add more salads and fruits to your diet
  8. Be aware of most restaurant serving sizes; they are usually three times larger than the appropriate portion size; try sharing meals when you go out to eat

**Water Consumption**

- **Water and Body Fluids:**
1. Carry nutrients and waste throughout the body
2. Acts as a lubricant and cushion around the joints, inside the eyes, the spinal cord, and in pregnancy, the amniotic sac surrounding the baby in the mother
3. Aids in regulating body temperature (i.e. sweating from the skin removes excess heat from the body)

Water Intake: When too much water has been lost from the body and not yet replaced, dehydration (water output exceeds the amount of water being taken in) develops. The stages of signs of dehydration include:

   a. 1\textsuperscript{st} stage: thirst, weakness, and loss of appetite
   b. 2\textsuperscript{nd} stage: dry mouth, flushed skin, and less urine
   c. 3\textsuperscript{rd} stage: difficulty in concentrating, headache, irritability, sleepiness, increased respiratory rate, and impaired temperature regulation
   d. 4\textsuperscript{th} stage: dizziness, loss of balance, delirium, exhaustion, and then finally collapse

Water Recommendations:
Water recommendations generally vary for each individual, due to diet, physical activity, environmental temperature, and humidity. The adequate intake of total water for men and women are as follows:
Men: 3.7 Liters per day (~ 16 cups)
Women: 2.7 Liters per day (11.5 cups)

Water Losses:
1. The body must excrete at least ~ 2 cups of water each day.
2. Water is needed to get rid of the waste products that develop daily in the body through metabolic activities.
3. Water is lost from the body through urine, sweat, breath from the lungs as vapor, and some in the feces.
4. On an average, the body loses about 2.5 liters (~10.5 cups) each day.

Health Effects of Water: Some health benefits of an adequate water intake may include:
1. Meets body’s fluid needs
2. Protects against cancers such as prostate, bladder, and breast cancers
3. Protects against kidney stones
4. Help you stay hydrated during physical activity

Exercise
What is physical activity? Movement of the body that uses energy and causes the body to work harder than normal. Enhances or maintains physical fitness and overall health.

   - Levels of physical activity? Examples?
      - Moderate: Burns 3.5-7 kcal/min
        Examples include: Walking briskly, Hiking, Dancing, Roller Skating, Gardening/Yard work, Bicycling (less than 10 mph), Weight training, Yoga, Gymnastics
      - Vigorous: Burns more than 7 kcal/ min
        Examples include: Running/Jogging, Bicycling (more than 10 mph), Swimming, Aerobics, Competitive Sporting Games (i.e. basketball, baseball, soccer, etc.), Karate, Mountain Climbing, Weight lifting
   - Note: for any health benefits, physical activity should be moderate or vigorous and add up to 30 minutes a day

How much physical activity is needed for Kids, Adults, and Older Adults?
Children and Adolescents (ages 6-17): at least 60 minutes or more of physical activity daily.
Adults: According to the 2008 Physical Guidelines for Americans, adults need at least:
1. 2 hours & 30 minutes (150 minutes) of moderate intensity aerobic activity each week
2. 1 hour and 15 minutes (75 minutes) of vigorous intensity aerobic activity each week
*Please Note: This sounds like a lot of time, but it doesn’t have to all be done at one time. Start off slow by trying a moderate exercise of walking for 30 minutes a day, for 5 days a week.

2. Older Adults: According to the 2008 Physical Guidelines for Americans, regular exercise can prevent many of the health problems that may come with age. It also helps your muscles grow stronger so you can keep doing your day-to-day activities without becoming dependent on others.

3. Older Adults, 65 years of age or older, that are generally fit, and have not limiting health conditions need the same amount of time as adults, yet not as vigorous.
*Please Note: Men over the age of 40 and women over the age of 50 planning to start vigorous physical activity should consult a health care provider. Individuals with chronic health problems such as heart disease, high blood pressure, diabetes, osteoporosis, asthma, obesity, and individuals at risk of heart disease or stroke (from family history), who smoke, lead sedentary lifestyles, or eat a diet high in fat and cholesterol, should also consult a health care provider for help in designing a safe program of physical activity.

How many calories are used during physical activity?
- Moderate: burns 3.5 to 7 calories per minute
- Vigorous: burns more than 7 calories per minute

Tips for increasing physical activity …

At Home:
- Start slowly and at a safe level.
- Consult your doctor if you have a medical problem.
- Join a walking group in the neighborhood
- Get the entire family involved
- Walk the dog
- Clean the house or wash the car
- Mow the lawn
- Play with the kids

At Work:
- Replace a coffee break with a 10 minute brisk walk
- Get off the bus or subway a stop early and walk the rest of the way
- Join office sporting events (if available)
- Take part in exercise program at work or nearby

Summary/Conclusion (5 minutes)
- Choosemyplate.gov is an excellent resource for you and your children to learn more as well as develop your own meal and physical activity plans to suit your families.
- Knowing the appropriate portion sizes and using simple visuals (like your hands) can help make healthier and well-balanced choices.
- Drinking enough water throughout the day, approximately 8-10 cups, can help keep you well hydrated.
- Exercising regularly is very important in trying to maintain a healthy body and lifestyle; 30-min/ day for health benefits and 60-min/ day for weight loss.
**Physical Activity (20 mins)**

**Zumba**: is a type of exercise from Latin America, which incorporates international music and dance moves that create a fun and dynamic way to stay active.
- Zumba integrates basic aerobic interval principles and strength resistance to maximize calorie expenditure and muscle tone.
- **Songs**: *Tigre Merengue* (Zumba Fitness), *Rabiosa* by Shakira, *Rosa* by Carlos Vives

**Food Demo (10 mins): Garbanzo** and Feta Cheese Salad (Recipe by Luisa Sabogal)

**References**
2. www.dairycouncil.com
3. www.choosemyplate.gov
Lesson Plan: Week 2 – Reading Food Labels, Fruits and Vegetables, and Dairy

Objectives:
By the end of this class, students will be able to:
1. Learn how to read a food label and identify its different components.
2. Describe how much of their plate should consist of fruits and vegetables.
3. List one characteristic that makes fruits and vegetables a healthy food choice.
4. Describe how many servings of dairy are needed each day.
5. Identify at least one benefit of eating foods from the dairy group.

Review (10 min)
Ask the following questions about Week 1: My Plate, Reading Labels, Portion Control, Water Consumption, and Exercise
Encourage active participation and interaction:
“What are some of the changes that you’ve made since last week’s lesson?”
“Who achieved their goals for the week? Please share!”
“Who made the recipe at home?”

Lesson (60 minutes)
Food Labels
• Help select foods with less saturated fat, trans fat, cholesterol, and sodium while having more vitamins and minerals. Mostly all processed foods contain food labels. Every food label has the same major components:
  1. Serving size and number of servings per container
  2. Kcal information and the quantity of nutrients as “% Daily Values” based on a 2000 kcal diet
  3. Daily values reminder that states the suggested daily amounts of nutrients based on a 2000 or 2500 kcal diet
  5. Ingredient list in descending order, depending on the weight of each ingredient

• Serving Sizes: always be sure to compare the serving size to the actual amount eaten.
- The nutrition facts are required to cover the nutrient amount and percent daily value of: kca, kca from fat, total fat, saturated fat, trans fat, cholesterol, sodium, total carbohydrates, dietary fiber, sugars, protein, vitamins and minerals

• Nutrient Claims: Nutrient claims are statements that characterize the quantity of a nutrient in a food. Examples include: “Good source of Fiber” or “Rich in Calcium”
  - These nutrient claims are okay, as long as they comply with the FDA definitions that create guidelines to which the terms may be used.

• Health Claims: Health claims are statements that describe the relationship between a nutrient or other substance in a food and a disease or health-related condition. Examples of health claims include: “Sodium and reduced risk of hypertension”, “Calcium and reduced risk of osteoporosis”, “Fruit & vegetables and reduced risk of cancer”

• Consumer Education: “From Guidelines to Groceries”: Here are some helpful tips from the USDA Food Guide to help you when shopping in the grocery store for healthier food items:
  1. Food groups that are encouraged: look for foods that state their fiber contents as a good source or high. Also look for foods that provide at least 10% Daily Value for fiber, vitamin A, Vitamin C, and calcium.
  2. Fats: look for foods that describe their fat, saturated fat, cholesterol, and trans fat content as free, less, light, reduced, lean, or extra lean. And foods
that provide no more than 5% of the Daily Value of fat, saturated fat, and cholesterol.

3. Carbohydrates: look for foods that describe their sugar contents as free or reduced. Also, a food may be high in sugar if its ingredients include: sugar, sucrose, fructose, maltose, lactose, honey, syrup, corn syrup, high-fructose corn syrup, molasses, or fruit juice concentrate.

(ACTIVITY - Pass out food labels and ask participants to locate each component of a food label and verify if it is a good source or a deficient source.)

Fruits & Vegetables
Ask class, “Why should you eat fruits & vegetables?”

Structure of Fruits & Vegetables and How it’s Good for Your Health
A Word about Fiber
- Fiber is a substance in plant foods that is not digested in the stomach or small intestine, also known as Dietary Fiber.
- There are 2 types of dietary fiber: Soluble and Insoluble fiber
- Soluble fiber: dissolves in water and is found in foods such as oats, brown rice, dried beans, seeds, fruits and vegetables.
- Insoluble fiber: does not dissolve in water and is found in foods such as whole wheat breads and cereals, fruits and vegetables.
- Soluble fiber has many health benefits including the maintenance of blood glucose levels and the ability to lower cholesterol which may reduce the risk of heart disease.
- Insoluble fiber helps prevents constipation and certain cancers such as colon cancer.
- Dietary Guidelines for Fiber:
  - 25 g per day for women
  - 38 g per day for men

(ACTIVITY: Use food labels to explain fiber content of foods. Pass out different items and ask)

Servings Sizes and the Average American
- Provide recommendation from the Dietary Guidelines for Americans, 2010
  - 5-9 servings of fruits and vegetables/ day
- Demonstrate these serving sizes through the use of food models
- Ask the participants- “Why is it that Americans do not consume enough fruits and veggies? What can we do to improve this in our own homes?”

Organic Fruits & Vegetables
- According to the USDA, “organic means that the food is produced without synthetic pesticides, fertilizers, genetically modified crops, antibiotics in livestock production, irradiation and sewage sludge as fertilizer.”
- Organic foods that are cheap and in season can be found at a local Farmer’s Market. Many of the farmers are certified organic and must follow certain guidelines in order to receive this certification.
- Recommend planting and growing their own fruits and vegetables.

The Environmental Working Group (EWG), a non profit group that analyzes the results of government pesticide testing, has compiled a list of the 14 foods they recommend buying Organic – they call this list the “Dirty Dozen Plus™” as well as a list of 15 foods that have the least amount of pesticide residue, called “The Clean 15™”

The Dirty Dozen Plus: Apple, Celery, Sweet bell peppers, Peaches, Strawberries, Nectarines – imported, Grapes, Spinach, Lettuce, Cucumber, Blueberries – domestic, Potatoes, Plus, + Green beans, + Kale/Greens, for these may contain pesticide residues of special concern
The Clean 15: Onions, Sweet Corn, Pineapples, Avocado, Cabbage, Peas, Asparagus, Mangoes, Eggplant, Kiwi, Cantaloupe – domestic, Sweet potatoes, Grapefruit, Watermelon, Mushrooms

**Dairy: Important Nutrients & Benefits of Dairy Group**

- Calcium - helps with bone growth and maintenance and prevents diseases such as osteoporosis.
- Vitamin D - is calcium’s friend and helps increase its absorption in the body. Studies have also found that it may also prevent high blood pressure, cancer and several autoimmune diseases (allergies, arthritis, type 1 diabetes, etc.)
- Osteoporosis - a condition where the bones become weak and fracture easily. There is no cure, but it can be prevented!

**Serving Suggestions for Calcium**

- General Guidelines (based on age):
  - Ages 1-3 = 2 servings (700 mg/d)
  - Ages 9-18 = 4 servings (1,300 mg/d)
  - Ages 19-50 = 3 servings (1,000 mg/d)
  - Pregnant Women = 4 servings (1,200 mg/d)
  - Ages 50+ = 4 servings (1,200 mg/d)

- Why are serving recommendations different for different groups? Explain bone growth and maintenance during each stage of life.

**Smart Choices & Other Source of these Nutrients**

- Key Consumer Message: Switch to fat-free or low-fat (1%) milk. Get your calcium-rich foods.
- Keep the vitamins, lose the fat - Explain to the class that it is recommended to choose dairy foods that are low fat and/or fat free.
- Decoding the various types of milk: Whole Milk (150 cal., 8 g of fat), Reduced Fat 2% (121 cal., 5 g of fat), Low Fat 1% (102 cal., and 3 g of fat), Fat Free/ Nonfat/ Skim (86 cal., and 0 g of fat)
- Other calcium sources: cheese, yogurt, cottage cheese, soymilk, almon milk, calcium-fortified OJ and cereals, spinach, salmon, kale, collard greens, broccoli, almonds, figs, papaya, flax seeds, soy beans, black beans.

**Alternatives for Lactose Intolerant People**

- Is a condition where one’s digestive system cannot break down the sugar in milk called lactose. This may cause stomachaches, gas, diarrhea or constipation after being eaten.
- Smaller amounts of dairy may be well tolerated. Also, lower-lactose and lactose-free products could help them meet their requirements. Other sources of calcium are also important and can easily replace dairy products in one’s diet.

**Summary/ Conclusion (10 min)**

- It is important to read and understand the wording on food labels to ensure you are buying the best quality product for you and your families.
- Fruits and Veggies should make up half your plate during mealtimes.
- 5-9 servings of fruits and veggies are recommended per day.
- Organic produce is healthy for you and can be good for the community. Visit your local Farmer’s Markets.
- Calcium and Vitamin D are important for healthy strong bones and can help prevent diseases such as osteoporosis, certain cancers and high blood pressure.

**Physical Activity (20 min)**

- **Zumba:** Songs- Tigre Merengue by Zumba Fitness, Intentalo (Me Prende) by 3 Ball MTY, Sexy and I Know It by LMFAO, Rosa by Carlos Vives
Food Demo (10 min)- Black Bean and Quinoa Salad (Recipe by Luisa Sabogal)

References

5. www.dairycouncil.com
Lesson Plan: Week 3 – Carbohydrates, Protein, and Fat

Objectives: By the end of this class, participants will be able to:
1. Identify the benefits and food sources of complex carbohydrates, specifically fiber.
2. List at least two ways to prevent diabetes, hypertension, and high cholesterol.
3. Identify saturated and unsaturated fat sources.
4. Identify recommended fat sources and spot products that contain trans-fats.
5. List at least two sources of protein and its function in the body.
6. List three risk factors of heart disease and two ways to prevent it.

Review (10 min)
Ask the following questions about Week 2: Reading Food Labels, Fruits, Vegetables and Dairy
Encourage active participation and interaction:
“What are some of the changes that you’ve made at home from last week’s lesson?”
“Who achieved their goals for the week? Please share!”
“Who made the recipe at home?”

Lesson (60 min)
Follow PowerPoint Presentation broken down into sections: Carbohydrates, Protein, and Fat. Throughout the presentation, ask questions to participants to evaluate their previous knowledge and provide the answer afterwards.

Carbohydrates:
• The main source of fuel or energy in the body, also known as glucose. There are 2 types: Simple and complex.
• Food sources include whole grains (brown rice, wheat, corn, oatmeal and barley), enriched breads, cereals, pasta, fruits and vegetables. Most carbohydrates also supply dietary fiber.
• Key Message: “Make at least half your grains whole.”
• In the US, half of the carbohydrates in a typical diet comes from grains, fruits and vegetables while the other half come from added sugars found in processed foods---> soda and other sugary drinks. Important to look at food label to see how much sugar is being consumed.
• Talk about sugars in moderation. Explain detrimental effects of sugar in excess.
• Diabetes: A condition where blood sugar levels are above normal not allowing the body to break it down for energy because there is not enough insulin (hormone produced by the pancreas) available to cells.
• Diabetes type 1: insulin deficient, dependent on exogenous insulin. Usually diagnosed before 30 years of age and accounts for 10% of cases.
• Diabetes type 2: insulin-resistance with relative insulin deficiency (may need insulin for maximum control) Before was only diagnosed after 40 years of age, though individuals are getting diagnosed at even younger ages. Accounts for 90% of cases.
• Prevention and maintenance are key! Increased physical activity, Follow myPlate or Carbohydrate counting meal plans and regular doctor visits are imperative.

Fat:
• Also known as lipids and is found in animal and plant-based foods. Functions include long-term energy storage, cushioning, insulation, hormone and bile production and metabolism of fat-soluble vitamins A, D, E, and K.
• 2 main types: Saturated and (mostly animal-based except coconut and palm oil which are solid at room temp) and Unsaturated (plant-based and liquid at room temperature)
• Trans fats: unsaturated fats that have been artificially saturated to become solid. Found in fried foods and other processed foods. Look for “hydrogenated oil” or “partially hydrogenated oil” on the ingredients list.
• Talk about cholesterol. Explain differences between LDL and HDL.
• Explain Omega 3 and Omega 6 fatty acids. Mention sources and functions in the body.
Talk about heart disease: what it is and how it happens. Mention most common symptoms of a heart attack, and the risk factors. Proceed by explaining what to do (nutritionally) to prevent a heart attack and/or heart disease.

Show basic eating pattern tips. List of foods of what to eat more and what to cut back on more to stay healthy and have a healthy heart.

Hypertension: definition, classification, cause, and treatment. Encourage participants to keep track of blood pressure reading, especially if they are hypertensive or have other health risk factors for cardiovascular disease.

Nutritional and health recommendations for hypertension. (Decrease Sodium intake, smoking cessation, limit alcohol intake, and exercise more).

Understand labels: check ingredient list, understand the label language (sodium free, very low, low sodium, reduced or light sodium, etc)

Protein:

- Protein is the building block that helps your body grow and repair itself. Needed to build strong muscles and maintain organ function. Made up of essential and non-essential amino acids.
- Important sources of iron, zinc and B vitamins and include animal (higher fat content) and plant- based (lower fat options) proteins.
- Sources include meats, dairy products, eggs, nuts, beans and legumes.
- Explain difference between vegetarian and vegans.
- Explain high vs. low quality protein, factors than influence quality, complete and incomplete proteins, and complimentary proteins. Show an example of complimentary protein in a meal.
- Talk about the health risk related with protein deficiency and over-consumption.
- Summarize main points of protein presentation by providing a final message slide= “Go lean with protein” & “vary your protein choices”

Summary/ Conclusion (5 min)

- Make at least half of your grains whole.
- Always read food labels to check for the amount of fat in a food to determine if they are beneficial or unhealthy.
- Go lean with protein and vary your protein choices.
- Disease prevention is key! Having a well-balanced diet, keeping active, moderate drinking and no smoking are key to a longer healthier life.

Activity/ Method of Evaluation (20 min)

Final Review: Nutrition Jeopardy! (See Appendix D)

- Break class into 4 groups.
- Explain the Jeopardy game: “Each group takes turns in selecting one category and one price. If the group answers the questions correctly, they get the amount of points the question is worth. The group that has the most points at the end wins”.
- Play Jeopardy game using Laminated Flashcards and keep scores.

Note: Make sure the categories represent the 3 lessons covered.
- The winning team gets to pick first what food to bring for graduation day from the Food Groups.

Physical Activity (20 min):

Zumba: Songs - Tigre Merengue by Zumba Fitness, Cumbia Tribalera (El Pelon del Microphone) by Violento, Trakalosa and DJ Morphius, Que te Pica by Notch and Rosa by Carlos Vives

Food Demo (10 min)- Apple and Yogurt Salad (Recipe by Luisa Sabogal)

References
2. Online information: www.choosemyplate.gov
Lesson Plan: Week 4 – Review & Tips on Dining Out, Shopping Smart, and Holiday Eating

Objectives: By the end of this class, students will be able to:
1. List at least 2 tips for staying healthy while dining out.
2. List at least 2 tips for shopping smart.
3. Identify 3 tips for healthy holiday eating.
4. Review key points learned throughout the program.

Method of Evaluation (20 min)
- Anthropometrics (Height, Weight, %Body Fat)
- FFQ/ Post Test

Review (10 min)
Ask the following questions about Week 3: Protein, Carbohydrates, and Fat
Encourage active participation and interaction:
“What are some of the changes that you’ve made at home from last week’s lesson?”
“Who achieved their goals for the week? Please share!”
“Who made the recipe at home?”

Lesson (30 min) with the help of the PowerPoint Presentation, provide tips on dining out, shopping smart and healthy holiday eating.

Shopping Smart
• *Ethnic and/or Farmers Markets* – shop at your nearest market for high quality at a cheaper price
• *Frozen Fruits & Veggies* – buy frozen produce when fresh is too expensive. These foods have been frozen at their peak nutritional state and contain all of the health benefits.
• *Plan Ahead* – think of meals you may cook, look at what you have at home already, and create a shopping list before you go
• *Coupons* – use coupons for items that you buy on a regular basis (e.g. Sunday “LA Times” paper always has a lot of coupons) Beware! Check to see if store brand isn’t cheaper because coupons are usually for the national more expensive brands.
• *Compare Prices* – compare the prices of different brands of food and consider store brand or generic
• *Only what you need* – buy only the items that you need or have room for in your kitchen.
• *Choose store brands of foods rather than national brands* - Are usually cheaper and just as tasty as their more expensive counterpart.
• *Make your own snacks* – snack foods tend to be the most expensive on the list

Dining Out
• Try not to rely on restaurant foods more than 3 times a week in order to have a healthy diet.
• Don’t be afraid of asking for special requests. Example: “Extra tomato” “Dressing on the side, please”, “Mustard instead of mayonnaise”
• Ask for gravies, dressings and sauces on the side so that you can control their amounts or avoid them completely
• Portions sizes tend to be big at restaurants, so share with someone, ask for a smaller portion, or take the rest of your meal in a box to-go
• Request non-fat or low-fat milk instead of whole milk
• When having pasta, go for the tomato-based sauces and veggie soups instead of the cream-based. Remember that cream sauces and gravies tend to be high in fat
• Request fruit for dessert or sherbet as lower-fat and healthier alternatives to pastries and ice creams
• Choose grilled, steamed, boiled, broiled, poached, and roasted food, instead of crispy, scalloped, pan-fried, and sautéed Ordering appetizers, which are usually smaller than entrees, can help you control portion sizes
• Choose burgers with lettuce and tomato and without cheese. The cheese adds extra saturated fat to an already high fat choice.
• “All-you-can-eat” places and buffets may not help you control portion sizes and can lead you to bypass healthy choices for not-so-healthy ones. Try to avoid them or go very sporadically.
• Enjoy deli sandwiches with lean meats and lots of veggies!
• Go for the steamed vegetables sides instead of the starchy rice or pasta sides
• Try to limit “bread and butter” consumption. This only adds extra calories and makes you full faster
• Choose water, sparkling water, freshly squeezed fruit juices, or fat-free milk instead of soft drinks
• Have more fish and chicken dishes and less red meat. Trim the visible fat to minimize your saturated fat intake, and remove the skin when having chicken. When having beef, choose the leaner cuts to avoid the excess fat.
• Decrease the consumption of salty sauces like, soy, barbecue, and teriyaki so as to decrease your sodium intake.

Healthy Holiday Eating

• Bring a healthy dish to share (i.e.: salad, whole wheat pasta, fruit dish)
• Have your friends and family come over to YOUR house if possible – you’ll have more control over the foods you serve.
• Arrive later – to avoid munching on not so healthy appetizers
• Eat before you go – eating a healthy snack will prevent you from eating too much later
• Control your environment – surround yourself by healthy foods and try to stay away from the ones you have less control over.
• Eat slowly
• Limit alcohol consumption – high in kcal: 7 Cal/g
• Focus on activities rather than food – make it about fun and family, not about food.

Debriefment (20 min)
Ask class as a whole and have notetakers ready for the process:
1. How can the program be changed/improved to be more helpful to you?
2. Which parts of the program were most useful?
3. Which parts of the program were least useful?

1. Was this class your first time doing Zumba?
2. What did you like about the Zumba? Dislike?
3. Did you feel that the moves were too difficult? Too easy?
4. What other type of physical activity/exercise would you like to learn as part of the physical activity component of the TOGH classes?

Conclusion (5 min)
• Ask participants what are the most valuable things they learned throughout the program (if time allows).
• Remind participants that setting specific and realistic goals and taking it one step at a time can get them far!
• Give participants cookbooks, congratulate them for completing the program, and thank them for participating in it.
Physical Activity (25 min)

Zumba Songs: Tigre Merengue by Zumba Fitness, Intentalo (Me Prendes) by 3 Ball MTY, Que te Pica by Notch, Rabiosa by Shakira, Rosa by Carlos Vives

Food Demo (20 min)
- POTLUCK: Participants will bring in their favorite dish, a dish from home, a dish using some of the recipes that were taught during the first 3 weeks of the series. Everyone bring in the food to share.

References:
Lesson Plan: Week 5 – Follow-up

Objectives: By the end of this class, students will be able to:
1. Review the 5 different components of MyPlate.
2. Locate and interpret the content of food labels information (serving size, kcals, total fat, etc.).
3. Assess the appropriate size for foods using simple portion control methods (i.e. one’s hands or common items).
4. Share their thoughts on the program, suggestions for improvement and offer ideas for future nutrition programs.
5. Share changes they have made to their families eating, cooking and physical activity.
6. Share their challenges and describe way that this program has helped / affected their family and children.

Activity/ Method of Evaluation (20 min)
• Collect Anthropometric Data (height, weight, BMI, % body fat)
• Have a notetaker ask each parent while in line- “From your perspective, how has this program benefited your family/ children?”

Review (25 min)
Ask the questions (See Appendix G) about the lessons during the Reunion Jeopardy game:
Week 1: Introduction to MyPlate, Portion Control, Water Consumption and Exercise
Week 2: Reading Food Labels, Fruits and Vegetables and Dairy
Week 3: Protein, Carbohydrates, and Fat
Week 4: Review & Tips on Dining Out, Shopping Smart, and Holiday Eating
- Pass out FFQ after the Review.

Debriefment (20 min)
Encourage active participation and interaction:
1. What are some changes that you and your family have made to your cooking techniques because of the program?
2. What are some changes that you and your family have made to your eating and nutrition behaviors because of the program?
3. What are some changes that you and your family have made to your physical activity behaviors because of the program?
4. From your perspective, how has this program benefitted your children?

Pass out Handouts and explain what each handout is about:
1. Farmer’s Market Location List
2. MyPlate
3. Healthier Options at the Market

Conclusion (10 min)
• Ask participants what are the most valuable things they learned throughout the program (if time allows).
• Remind participants that setting specific and realistic goals and taking it one step at a time can get them far!
• Give participants cookbooks, gift cards and handouts.
• Congratulate them for completing the program, and thank them for participating in it.

Physical Activity (30 min)-
Zumba Songs: Tigre Merengue, La Vaca, Krazy by Pitbull, Rosa by Carlos Vives

Food Demo (10 min)- Edamame Salad and Crackers

References:
APPENDIX B
Curriculum in Spanish

Leccion: Semana #1 – Introduccion a MiPlato, Control de Porciones, Los Beneficios del Agua y el Ejercicio

Objetivos
Después de esta clase, los participantes podran:
1. Nombrar los 5 grupos de alimentos de MiPlato.
2. Reconocer porciones adecuadas para ciertas comidas.
3. Identificar los beneficios de tomar suficiente agua y la cantidad adecuada para tomar.
4. Nombrar dos razones porque el ejercicio es importante para la salud.

Introduccion de parte del Instructor (3-5 min)
El instructor se va presentar a la clase:
- Nombre, Carrera Educativa, Trabajo (i.e. Dietista, Estudiante de Nutricion, etc.)
- Explica de que se trata el programa- ¿Que es A Taste of Good Health/ Una Prueba de Buena Salud?
- Presenta lo que va a pasar sobre las proxima 5 semanas- lecciones, actividades, ejercicio de Zumba, etc.

Actividad/ Metodo de Evaluacion (20 min)
- Colecta informacion (estatura, peso, porcentaje de grasa corporal)
- Repasa el Cuestionario (Pretest)

Introduccion de los Participantes (10 min)
- Nombre? Tienen hijos? Que es lo que le gustaria aprender de la clase?
El instructor va compartir un breve repaso sobre la leccion del dia:
- MiPlato
- Control de porciones
- El consumo de agua
- Los beneficios del ejercicio

Leccion de nutricion: Introduccion a MiPlato (60 min)
- Basado en 2010 Dietary Guidelines for Americans para ayudar a los consumidores a tomar mejores decisiones en alimentaciones.
- Diseñado para recordar a comer de una manera saludable.
- Ilustra los 5 grupos de alimentos.
- Desarrollado por el Departamento de Agricultura de los Estados Unidos.
- Bajo la idea de que un plan de dieta es diferente para cada persona.
- Cuenta con informacion práctica y consejos para construir una dieta más saludable.

Direcciones:
1. Pan y Granos: Haga por lo menos 1/2 de sus granos integrales
2. Verduras: Varea las verduras (2 a 3 tazas al dia)
3. Frutas: Concéntrese en las frutas (1 1/2 a 2 tazas al dia)
4. Productos Lacteos- Cambie de la leche sin grasa o 1%, y consiga sus alimentos ricos en calcio
5. Proteinas: Escoja proteínas bajas en grasa, varea sus opciones de alimentos de proteina

Control de Porciones: Cantidad recomendada para los grupos de comidas
Depende de su edad, género, y nivel de actividad física.

- Pan y granos = 5-8 onzas
- Verduras = 2-3 tazas
- Frutas = 1 1/2 - 2 tazas
- Productos Lacteos = 3 tazas/ porciones
- Carnes y legumbres = 5-6 onzas
- Aceites = 5-7 cucharaditas (por día, pero no es necesario)

**Métodos para medir porciones (usando sus manos o otros objetos):**

- Extremidad del dedo = 1 cucharadita
- Su puño = 1 taza
- Su dedo pulgar = 1 onza de queso
- Puñito = cerca de 1 a 2 onzas
d- Palma de su mano = cerca de 3 onzas de carne
- Pelota de tenis = 1 fruta

*Folleto- “Opciones Mas Saludables”*

**Consejos para Controlar su Porción a consumir:**

1. Coma despacio
2. Use un plato más pequeño
3. Coma 3 comidas- Desayuno, Almuerzo, y Cena
4. Intente comer solo una porción
5. No lleve la bolsa entera de papás fritas o el cartón entero de nieve al sofá.
6. Evite comprar comidas “extra-large” o “super-size”
7. Incorpore mas ensaladas y frutas en su dieta.
8. Note que en la mayoría de los restaurantes las porciones son 3 veces más grandes que el tamaño de la porción apropiada; intente compartir su plato.

**Consumo de Agua: ¿Porque necesitamos agua?**

- Elimina los desechos y transporta los nutrientes sobre el cuerpo
- Sirve como lubricante y encojina las conjunturas de los huesos
- Y humedese los ojos, la cuerda espinal, también protege el bebé durante el embarazo
- Ayuda regular la temperatura del cuerpo con el sudor

**Los signos de deshidratación:**

- Etapa 1: sed, fatiga, y la pérdida de apetito.
- Etapa 2: Funcionamiento físico deteriorado, boca seca, piel roja/rosada y reducción de la orina.
- Etapa 3: Dificultad en concentrarse, dolor de cabeza, irritabilidad, somnolencia, aumentó respiratorio.
- Etapa 4: Vértigos/mareos, pérdida de balance, delirio, agotamiento, y finalmente desmayo.

**Cantidades Recomendadas**

- Generalmente, la cantidad recomendada varía por persona dependiendo a su dieta, actividad física, temperatura del ambiente y humedad. Por lo menos, 8-10 vasos de agua.
  - Hombres = 3.7 litros al día (~16 vasos)
  - Mujeres = 2.7 litros al día (~11.5 vasos)

**Beneficios de Tomar Agua:**

- Ayuda a obtener las necesidades de fluido corporal
- Protege la vesícula contra el cáncer
- Protege contra cálculos renales
- Protege contra cáncer de próstata
• Protege contra cáncer de mama

**Ejercicio:**

• Niños y Adolescentes (edades 6 a 17): por lo menos 60 minutos o más de actividad física cada día.

• Adultos: Deben hacer por lo menos 2 clases de actividad física (aeróbica & muscular) cada semana para mejorar su salud. Necesitan por lo menos:
  - 2 horas & 30 minutos (150 minutos) cada semana.
  - 1 hora y 15 minutos (75 minutos) cada semana.

• Adultos (65+ años): puede prevenir muchos problemas de la salud que están asociados con la edad. Los Adultos de 65 años de edad o más, que están en estado físico y que no tienen algún problema de salud que lo limite a hacer actividades también necesitan 30 min. cada día.

**Importante:** Los hombres mayores de 40 y las mujeres mayores de 50 que planean empezar actividad física vigorosa deben consultar a su doctor. Los individuos con problemas crónicos de salud (cardíaca, hipertensión, diabetes, osteoporosis, asma, obesidad, etc) si fuma, lleva un estilo de vida sedentaria, o come una dieta alta en grasa y colesterol, también debe consultar a su doctor para obtener ayuda en diseñar un programa apropiado.

• Ejercicio Moderado: Quema 3.5 to 7 kcal/ min
  - Escalar, Limpia la casa, bailar, patinar, trabajar en el jardín, andar en bicicleta, entrenar de pesas, yoga, gimnasia, caminar enérgicamente

• Ejercicio Vigoroso: Quema mas de 7 kcal/ min
  - Correr, bicicleta (Mas de 10 mph), nadar, aerobics, karate, subir la montaña. **levantamiento de pesas, deportes**

**Importante:** para obtener beneficios para su salud, la actividad física debe ser moderada o vigorosa y al menos 30 minutos al día.

**Beneficios de la actividad física: Porque es importante el ejercicio?**
1. Controla su peso
2. Previene aumento de peso
3. Reduce el riesgo de enfermedades cardíacas, la diabetes, y algunos cánceres
4. Controla su presión arterial
5. Refuerza sus huesos y los músculos
6. Aumenta su oportunidad de vivir más tiempo
7. Mejora su auto estima y su bienestar
8. Aumenta su nivel físico
9. Mejora su flexibilidad y la postura

**Consejos para aumentar los niveles de ejercicio:**
- Unese a un grupo para caminar en la vecindad
- Invita toda la familia a caminar
- Camina el perro
- Limpia la casa o lava el coche
- Juegue con los niños
- En vez de tomar café en su break, vaya a caminar por 10 minutos
- Bajese del autobús o el metro una parada antes y camine.
- Hagase miembro de algun deportivo en su comunidad
- Participe en programas de ejercicio en el trabajo o centros recreacionales (YMCA, parque, escuelas, etc.)

**Repaso (5 min)**
• MiPlato es una buena manera para aprender a comer comidas más balanceadas y saludables.
• Reconociendo la porción apropiada puede asistir en haciendo mejor decisiones cuando comiendo en la casa o en un restaurant.
• Es importante tomar vastante agua- por lo menos 8-10 vasos al día.
• El mantenimiento de la actividad física es importante para la salud- por lo menos 30 min. al día para la salud, y 60 min. para mantener/ perder peso.

**Zumba! (20 min)**
- Es un tipo de ejercicio de Latino America que incluye música internacional y movimientos da danza para crear un programa de actividad física dinámico y divertido!
- Zumba integra algunos de los principios básicos del intervalo aeróbico y entrenamiento de resistencia para maximizar el rendimiento calórico, los beneficios cardiovasculares y de tonificación corporal total.

**Demostración de comida (10 min):** Ensalada de queso feta y garbanzos (Receta por Luisa Sabogal)

**Referencias**
3. www.dairycouncil.com
4. www.choosemyplate.com
Leccion: Semana #2 – Etiquetas de Alimentos, Frutas, Verduras y Productos Lácteos

**Objetivos**
Despues de esta clase, los participantes podran:
1. Describir cuantas porciones de frutas y verduras son necesarias cada día.
2. Listar una característica del por que las frutas y verduras una opción de alimento sano para consumir.
3. Describir cuantas porciones de productos lácteos son necesarios cada día.
4. Identifique al menos un beneficio de comer alimentos del grupo de los productos lácteos.
5. Listar al menos una razón del por qué el desayuno es importante para tener una buena salud.

El instructor va compartir un breve repaso sobre la leccion del día:
- Como leer las etiquetas de alimentos
- Frutas y verduras
- Productos lácteos

**Receso (10 min)**
Hable sobre las siguientes preguntas de la leccion pasada Semana#1: Introduccion a MiPlato, Control de Porciones, Los Beneficios del Agua y el Ejercicio
- “¿Cuales son algunos cambios que han hecho en su casa sobre los temas de la leccion pasada?”
- “¿Quien ha hecho un cambio saludable desde la ultima leccion?”
- “¿Quien hizo la receta para su familia?”

**Leccion de nutricion: (60 min)**
Etiqueta de Alimentos: puede ayudar a elejir la opcion mas saludable que tenga menos grasa, colesterol, sodio y azucar con mas vitaminas y minerales. La mayoria de las comidas procesadas demuestran una etiqueta de alimentos que explica los ingredientes en la comida.

**Partes de la Etiqueta incluye:**
- Serving size (tamaño de la porcion) y number of servings per container (número de porciones en el producto)
- Calories (calorías) y otros nutrientes con sus respetivas cantidades en gramos.
- % Daily value (% del Valor Diario) es el valor nutritivo basado en una dieta de 2000 calorías.
- Los ingredientes en la lista estan en orden descendiente.

**Serving Sizes (Tamaño de la porción):**
- Compare el tamaño de la porción con la cantidad por consumir.
- Tamaño de la porción en la etiqueta de los alimentos no siempre concuerda con aquellos recomendados en la guía de alimentos propuestos por USDA.

**Datos nutricionales:**
- Incluye: calorías, grasas, colesterol, sodio, carbohidratos, fibra, azúcares, proteínas, vitaminas y minerales.

**Valor Diario:**
- Es el % que usted va a obtener de cada nutriente (basado en una dieta de 2000 calorías)
- Ayuda al consumidor a ver si el producto provee “poco” o “mucho” de cada nutriente.
**Reclamo de Nutrientes**

- Declaraciones que muestran la cantidad de un nutriente en un alimento:
  1. “Buena fuente de fibra”
  2. “Alto contenido de calcio”
- Tiene que seguir las pautas del FDA para que estos términos puedan ser utilizados. Es importante leer!

**Declaraciones de propiedades saludables:**

- Describen la relación entre un nutriente o otra sustancia en un alimento y una enfermedad o condición relacionada con la salud. Ejemplos de declaraciones de propiedades saludables incluyen
  1. "El calcio y el menor riesgo de osteoporosis."
  2. "Sodio y un menor riesgo de hipertensión"

**Consejos para el Mercado- Intente seleccionar comidas que:**

- Indica contenido de fibra como una fuente buena o alta.
- Proporcione por lo menos 10% de Valor Diario de fibra, Vit A, Vit C, & calcio.
- Describa el contenido de su grasa, grasa saturada, colesterol, & grasa trans indicando free, less, light, reduced, lean, o extra lean.
- Proporcione no más del 5% del Valor Diario de grasa, grasa saturada, & colesterol.
- Describa el contenido de azúcar como free o reduced.

(ACTIVIDAD- Repase los paquetes de comidas que contienen etiquetas de alimentos para localizar los componentes de las etiquetas.)

**Frutas y Verduras**

“¿Porque tenemos que consumir frutas y verduras?”

**Estructura de frutas y verduras- Fibra:**

- Es un componente en las frutas y verduras que no puede ser digeridas.
- Fibra dietética se refiere a la cantidad de fibra total que se encuentra en un producto alimenticio determinado.
- Fibra dietética = Fibra soluble + Fibra insoluble
- ¡Vamos a mirar a los datos nutricionales en una etiqueta de los alimentos para identificar dónde se encuentra la fibra dietética!

**Tipos de Fibra:**

- Fibra Soluble- Se disuelve en agua y se encuentra en los siguientes alimentos:
  - Avena, arroz integral, frijoles secos, semillas, frutas (manzanas, naranjas, etc.), verduras (Maíz, Espinaca, Coliflor, etc.)
- Fibra Soluble tiene beneficios para la salud- ayuda reducir el colesterol, reduciendo la posibilidad de enfermedades del corazón.

**¿Qué es el colesterol?**

- El colesterol es un tipo de grasa, un lipido que participa en muchos procesos fisiológicos importantes como el celular, el digestivo y es un gran componente de las hormonas del cuerpo.
- Comidas que contienen productos animales pueden contener colesterol.
- Puede obstruir las arterias causando enfermedades del corazón a lo largo de su vida.
- Colesterol (LDL) es clasificado como “malo” o “insaludable” y HDL es el “happy” o “saludable”.

**Mas beneficios de la Fibra:**

- La fibra soluble ayuda mantener los niveles de glucosa [azúcar] en la sangre- reduce la velocidad de absorción.
• Importante para las personas con diabetes.
• La fibra insoluble atrae la agua, y elimina los residuos (ayudar a prevenir el estreñimiento).
• Reduce el riesgo de ciertos tipos de cáncer, por ejemplo, cáncer de colon. Ayuda que los residuos permanecen en el colon por menos tiempo. Limitada eliminación de residuos puede causar daño al colon.
• Pautas dietéticas por día: 25 gramos para mujeres, 38 gramos para hombres
• ¿La mayoría de Americanos comen suficientes frutas y verduras? Un estudio mostró que los estadounidenses consumen la cantidad mínima de frutas y verduras.
• Esto puede ser causado por el aumento del costo de las frutas y verduras, pero hay esperanza!
  - Farmer’s Markets (Mercados de Granjeros)
  - Frutas y Verduras congeladas
    - Frutas y verduras organicas
    - Plantar su propio jardín
  - “¿Qué podemos hacer para mejorar esto con nuestras familias?”

¿Qué significa orgánico?
• El USDA declaro, “... las prácticas de producción de alimentos que evitan la mayoría de los pesticidas sintéticos y fertilizantes, los cultivos modificados genéticamente, los antibióticos en la producción ganado, la irradiación y el uso de lodos de aguas residuales como fertilizante” (Murano, 2003, p. 208)

¿Comprar Orgánico- si o no?
• Los 12 Recomendados: Manzanas, Apio, Chiles Campana, Duraznos, Nectarinas, Fresas, Uvas, Espinaca, Lechuga, Pepinos, Moras, Papas, Lechugas de Hoja Verde
  Pueden contener pesticidas o residuos químicos
• Los 15 Regulares: Cebollas, Elote, Piña, Aguacate, Repollo, Chicharos, Asparagos, Mangos, Kiwis, Berengenas, Melon, Sandia, Camotes, Hongos
¿Dónde puedo comprar Frutas & Verduras Orgánicas?
• Uno puede visitar los Farmer’s Markets (mercados de agricultor local) para comprar frutas y verduras a la temporada.
• Muchos de estos agricultores con certificación orgánica deben seguir ciertas pautas a fin de recibir esta certificación.
• Vaya online al www.ams.usda.gov/farmersmarkets/map.htm
• O llame al (800) 384-8704

Productos lácteos
Nutrientes y Beneficios:
• Este grupo de alimentos contiene muchos nutrientes importantes para una buena salud.
  Hoy, vamos a discutir dos de estos nutrientes importantes:
• Calcio (Ca, un mineral)- además del crecimiento y mantenimiento de los huesos, calcio ayuda a prevenir enfermedades como la osteoporosis.
• Vitamina D - ayuda a aumentar la absorción del calcio. Es muy importante para prevenir el osteoporosis que es una condición donde los huesos se vuelven débiles y se fracturan con facilidad. Cuando el osteoporosis se ha establecido, no hay manera de curarlo.
• Es por eso que la prevención es importante!

Recomendaciones para el Calcio (guías generales basadas en la edad):
• Escuela Primaria hasta la Escuela Secundaria = 4 porciones (1,300 mg/d)
• Edad 20s – 40s: 3 porciones (1,000 mg/d)
• Mujeres Embarazadas= 4 porciones (1,200 mg/d)
• Edad 50 años y mayores = 4 porciones (1,200 mg/d)
¿Por qué son diferentes las recomendaciones? Explica el crecimiento y mantenimiento de los huesos a las diferentes edades de la vida. Es importante tomar decisiones inteligentes al comer alimentos de este grupo.

**Buenas Opciones**

- Naturalmente, el grupo de los lácteos tiene mucha grasa. ¿Cuál es la diferencia entre la leche entera, 2%, 1%, y la leche descremada?
- **Leche:**
  - Leche entera: 150 cal. and 8 g grasa
  - Reducida de grasa (2%): 121 cal. & 5 g grasa
  - Baja de grasa (1%): 102 cal. & 3 g grasa
  - Fat-Free/Non-Fat (Descremada): 86 cal. and 0 g grasa
- Recuerde: Mantenga las vitaminas, pierda la grasa! Al seleccionar los productos que son bajos en grasa o sin grasa!

**Intolerancia a la Lactosa**

- No se puede digerir la azúcar de la leche (lactosa).
- Síntomas puede incluir dolor de estómago, diarrea o estreñimiento después de comer/beber productos lácteos.
- Uno puede alternar los productos lacteos, alimentos fortificados con calcio, y otras comidas que también contienen calcio- espinaca, verduras de hoja verde, brocoli, almendras, higos, papaya, soya, linaza y frijoles negros.

**Repaso (10 min)**

- Es importante leer y entender las etiquetas de alimentos para poder comprar la mejor opción.
- Frutas y verduras deberían ser medio de su plato a la hora de comidas (5-9 porciones).
- Frutas y Verduras orgánicas pueden ser más saludable para usted y su comunidad. Visiten su Farmer’s Market más cercano!
- El calcio y la Vitamina D son importantes para el crecimiento y mantenimiento de los huesos. Ayuda a prevenir el osteoporosis, ciertos cánceres, y ayuda evitar la alta presión.

**Zumba! (20 min)**


**Food Demo (10 min):** Ensalada de quinoa con frijoles negros (Receta por Luisa Sabogal)

**Referencias**

5. www.dairycouncil.com
6. www.google.com/images
7. www.choosemyplate.gov
Leccion: Semana #3 – Carbohidratos, Proteinas y Grasas

Objetivos
Despues de esta clase, los participantes podran:
1. Identificar los beneficios y fuentes de carbohidratos complejos, especialmente la fibra.
2. Nombrar dos metodos que podrían prevenir el diabetes, alta presion, y alto colesterol.
3. Identificar comidas que contienen grasas saturadas y no saturadas.
4. Identificar comidas que contienen grasas saludables en lugar de grasas trans.
5. Identificar dos fuentes de proteina y su funcion en el cuerpo.
6. Nombrar 3 riesgos de la salud que podrían causar enfermedades cardiacas, y nombrar 2 métodos de prevencion.

El instructor va compartir un breve repaso sobre la leccion del dia:
• Carbohidratos
• Proteinas
• Grasas

Repasso (10 min)
Hable sobre las siguientes preguntas de la leccion pasada: Semana #2– Etiquetas de Alimentos, Frutas, Verduras y Productos Lácteos
“¿Cuales son algunos cambios que han hecho en su casa sobre los temas de la leccion pasada?”
“¿Quien ha hecho un cambio saludable desde la ultima leccion?”
“¿Quien hizo la receta para su familia?”

Leccion de nutricion: (60 min)

Carbohidratos:
• Son la fuente principal de energia para el cuerpo (glucosa)
• 2 Tipos
  - Carb. Simples: azucares (cadenas cortas de glucosa)
  - Carb. Complejos: almidon (cadenas largas de glucosa) y fibra
Fuentes de Carbohidratos- granos integrales (arroz integral, trigo, maiz, avena, cebada), panes, cereales, pasta, frutas y verduras
• Granos Integrales tambien contienen:
  - Fibra- ayuda con la digestion y ayuda prevenir el cancer
  - Hierro- mantiene la sangre fuerte para llevar oxigeno a todo el cuerpo
  - Minerales- ayuda mantener el sistema nervioso y inmunologico
  - Vitaminas B- ayuda regular el metabolismo y mantiene el pelo y la piel saludable.
Fibra- actua como una escoba en el intestino ya que no la podemos digerir pero algunas bacterias en el intestino pueden ayudar a desolverlo. La fibra no provee energia pero si ayuda a limpiar los dientes y previene caries.

Etiquetas de Comida: Cuando compramos pan es importante que la etiqueta diga 100% whole wheat bread o 100% trigo integral.
- No vea al color del pan!
- Cuando compramos comida que contienen granos integrales (como cereales, pan, arroz) el primer ingrediente de la lista de ingredientes debe tener la palabra “whole” o “integral” (ej: whole grain of oats, whole wheat flour).
• Azucar- En los Estados Unidos la mitad de los carbohidratos que comemos vienen de granos, frutas y verduras mientras que la otra mitad viene de azucares agregados que encontramos en la comida procesada.
• El consumo de azucares agregados ha aumentado en los ultimos anos debido al aumento en el consumo de bebidas azucaradas y sodas especialmente.
“¿Cuando tenemos sed, que podemos tomar que sea mas saludable?”

- Azucar en las Etiquetas- Si alguno de los siguientes ingredientes aparece primero o cerca del principio en la lista de ingredientes, la comida o bebida seleccionada tiene altas cantidades de azucar y su consumo debe ser limitado: “sucrose, invert sugar, corn sugar, corn syrups, high-fructose corn syrup, y honey.”

“¿Por que debemos tener cuidado con la cantidad de azucar que comemos?”

- En moderacion el azucar puede ser un gusto placentero. En cantidades altas puede ser perjudicial.
- Las comidas y bebidas que tienen mucho azucar tienen muchas calorias y muy poca nutricion. Esto lleva a un aumento de peso, pero tambien puede resultar en deficiencias nutricionales ya que ocupamos nuestro cuerpo con comidas de bajo contenido nutritivo. El acido de las sodas puede deteriorar el esmalte de los dientes.

- Diabetes- Una condicion medica en la cual los niveles de azucar en la sangre son muy altos porque el cuerpo no puede usar la glucosa bien para convertirla en energia. Esto ocurre porque no hay suficiente insulina (hormona producida por el pancreas) disponible para ayudar a usar la glucosa correctamente.
  - Tipo I: Las celulas en el pancreas no producen suficiente insulina. Dx antes de los 30 anos. 10% de los casos
  - Tipo II: Las celulas en el cuerpo no reconocen la insulina correctamente. Dx despues de los 40 anos, y ultimamente mas joven --- ¿Porque?
- ¿Como se puede prevenir? Mas ejercicio, MiPlato, dietas donde uno cuenta la cantidad de carbohidratos y comunicando con su doctor sobre los tipos de tratamientos especificamente para usted. La prevencion y mantenimiento de los niveles de azucar en la sangre es bien importante.

- Conclusion: Comer mas carbohidratos complejos (presente en frutas, vegetales, comidas de granos enteros y frijoles y otros legumbres), limitar o controlar el consumo de azucar, leer las etiquetas de comida para ver la cantidad de azucar en la comida y para buscar si la comida es “whole” o “integral”.

Grasa:

- Formalmente conocidos como “Lipidos,” se encuentran en productos animales y vegetales.
- Las funciones que cumple en el cuerpo son:
  - Guarda grandes cantidades de energia (es importante que se almacene alrededor de los musculos y no los organos o venas y arterias)
  - Amortiguadora
  - Protege contra temperaturas extremas
  - Produccion de bilis y hormonas
  - Ayuda en el metabolismo de las vitaminas A, D, E, K (basadas en grasa)
- 2 Categorias: Saturada ( grasas animales, excepto el coco y el aceite de palma, solida a temperatura ambiente) y no Saturada (aceites vegetales – liquidos a temperatura ambiente)

- Grasas Trans- Son grasas no saturadas (por lo general liquidas) que son artificialmente saturadas para convertirlas en solidas. En el cuerpo actuan de la misma manera que la grasa saturada. Consumidas en exceso pueden tapar arterias y causar problemas de salud. Hay muy pocas grasas “trans” naturales. Comidas fritas, tortas y pasteles, galletas, donas, chips, margarina, imitacion queso, y carnés. En la lista de ingredientes se puede identificar a las grasas trans como “hydrogenated oil” (aceite hidrogenado) o “partially hydrogenated oil” (aceite parcialmente hidrogenado)
• Colesterol: LDL- “Lousy, Lame” o HDL- “Happy, Healthy.” El exceso de colesterol= enfermedades del corazón, ataque cardiaco o derrame cerebral. El ejercicio ayuda aumentar los niveles de HDL!!!

• Ácidos Grasos: Omega 3- se encuentra fácilmente en muchas comidas. Omega 3 solamente se encuentra en pescados grasos (como el salmón y sardinas), nueces, semillas de lino y los aceites vegetales (canola, soya y aceites de linaza).

• El consumo de ácidos grasas Omega 3 ayuda a prevenir coágulos sanguíneos, protege de la arritmia, y ayuda a reducir la alta presión para la gente con hipertensión y arteriosclerosis.

• Enfermedades Cardíacas: la causa más común de enfermedades cardíacas es la obstrucción de arterias coronarias, las cuales llevan sangre al corazón. Ocurre lentamente pero es acumulativo= ataques cardíacos.

• 5 síntomas principales de un ataque cardíaco: Dolor en la mandíbula, cuello y/o espalda, debilidad, mareos y desmayos, dolor o presión en el pecho, dolor o presión en los brazos y los hombros, dificultad para respirar.

• Factores de Riesgo: sedentarismo, fumar, alcohol, obesidad, alta presión, bajo HDL y alto LDL

• Controlar el consumo de grasas saturadas (productos animales), colesterol, y grasas trans (alimentos procesados), aumentar el consumo de la fibra (soluble) Controlar el peso, Hacer ejercicio diario, por lo menos 30 min, chequear los niveles de colesterol en la sangre. El analísis se llama “lipid profile”.

• Hipertensión: Es alta presión en muchos casos no tiene síntomas. Se desarrolla a lo largo de los años y si no está controlada por un médico aumenta el riesgo de serios problemas de salud como ataque cardíaco o derrame cerebral.

• La lectura de la presión tiene 2 números:
  - Presión Sistolica: Mide la presión en las arterias cuando el corazón late (arriba).
  - Presión Diastólica: Mide la presión en las arterias entre los latidos (abajo).

Clasificación:
  - Normal: <120 y <80
  - Prehipertensión = 120 a 139 mm Hg o una presión diastólica de 80 a 89 mm Hg.
  - Hipertensión Etapa 1: 140-159 o 90-99
  - Hipertensión Etapa 2: >/160 o >/100
  - Hipertensión

• Tratamiento: Perdida de peso, ejercicio diario, y otros cambios en el estilo de vida pueden ayudar a prevenir que la alta presión se desarrolle y resulte en hipertensión. Controla y Chequea! Consultale y preguntale a tu doctor regularmente.

• Explique los consejos de nutrición para la hipertensión de reducir la cantidad de sodio en la dieta y seleccionar mas granos integrales, carnes y productos lácteos bajos en grasa, frutas y verduras frescas.

• Conclusion: selecciona comidas que tienen mas grasas no saturadas y menos grasas saturadas, lea las etiquetas de comidas para ver de la cantidad de grasas, consuma regularmente comidas que tengan Omega 3 y consuma grasas en moderacion.

Proteína:
• Compuesto de aminoácidos que ayudan los músculos funcionar, ayuda que la sangre se coagule mejor, protege de infecciones, provee estructura a los huesos, pelo y piel.

• Las proteínas son responsables del crecimiento, para construir músculos fuertes y órganos internos de buen funcionamiento. Repara tejidos: enfermedades y heridas

• Fuentes de proteína también contienen hierro, zinc y vitamina B: Carne, pescado, pollo, pavo, frijoles, legumbres

• Algunas carnes tienen mucha grasa, hay varias formas de reducirlo: Elige cortes bajos en grasa, remueva la mayor cantidad de grasa visible, quitele la piel, evite freir la carne y elija métodos saludables como “al horno” o “a la parilla.”
• Otros Alimentos con Proteina: Huevos, nueces, productos lacteos, edamame, tofu y quinoa.
• Vegetariano: personas que no comen carne o pescado por razones éticas y de salud.
• Vegan: personas que no comen comidas que contienen productos animales.

• Proteínas Completas- contienen todos los aminoácidos; por lo general se encuentran en todos los productos animales.
• Proteínas Incompletas- no tienen todos los aminoácidos. Personas que no comen productos animales debe combinar la comida correctamente para obtener todos los aminoácidos.
• Proteínas Complementarias- 2 o más proteínas obtenidas de las comidas cuyo aminoácidos se complementan de tal forma que los aminoácidos esenciales que le faltan a una, los provee la otra.
  - Ejemplo de proteínas complementarias en una comida:
  - Legumbres + Granos = “Combinacion Perfecta!”

• Meta (si eres vegetariano): Come una variedad de granos, legumbres, semillas, nueces (almendras, etc) y vegetales!
• Riesgos de salud asociados a la proteína:
  - Deficiencia- Malnutricion, poco crecimiento (en ninos), anemia
  - Demasiada consumicion- Enfermedad cardiaca, problemas de riñon y Osteoporosis.
• Conclusion: Coma una variedad de alimentos con proteina y en moderacion. Evita el exceso de proteina, limite las proteínas que tienen mucha grasa y evite agregarles grasa o aceite. Las personas que no consumen alimentos de origen animal deben combinar sus comidas de modo de obtener buena nutricion y prevenir deficiencias.

**Conclusion (5 min)**

• Haga la mitad de sus panes y granos, enteros o integrales.
• Siempre lea las etiquetas de alimentos para verificar la cantidad de grasa en la comida para ver si es una opcion saludable.
• Escoje proteínas bajas en grasa y varea tus opciones.
• La prevencion de las enfermedades es esencial! Comiendo comidas balanceadas, mantenerse activo, limitar bebidas alcohólicas y no fumar son importantes para mantenerse saludable.

**Actividad/ Metodo de Evaluacion (20 min)**

Repaso Final: *Jeopardy de Nutricion* (See Appendix D)
- Forma 2 grupos de participantes.
- Explica el juego de Jeopardy: “Cada grupo se turnara para darle vuelta a la rueda para seleccionar una categoria y puntos para la pregunta. Si el grupo responde correctamente, ganan la cantidad de puntos de la pregunta. El grupo con la mayoría de los puntos gana el juego!”
- Lea las preguntas del Appendix D
- El grupo ganador son los primeros en escojer que van a traer para el Potluck la siguiente semana.

**Actividad Fisica (20 min):**
*Zumba: Songs*- Tigre Merengue by Zumba Fitness, Cumbia Tribala (El Pelon del Microphone) by Violento, Trakalosa and DJ Morphius, Que te Pica by Notch and Rosa by Carlos Vives

**Demostracion de comida (10 min)**- Ensalada de manzanas y yogur (Recipe by Luisa Sabogal)

**Referencias**
6. www.dairycouncil.com
7. www.google.com/images
8. www.choosemyplate.gov
Leccion: Semana #4 – Repaso, Consejos Para ir de Compras, Comer Fuera de Casa y Comer Saludable Durante Ocasiones Festivas

Objetivos
Despues de esta clase, los participantes podran:
1. Identificar dos consejos para comer saludable en restaurantes y comida rapida.
2. Nombrar dos métodos para comprar comidas saludables en el mercado.
3. Identificar 3 consejos para comer mas saludable durante las temporadas festivas.
4. Repasar informacion importante sobre las lecciones del programa.

Actividad/ Metodo de Evaluacion (20 min)
- Colecta informacion (estatura, peso, porcentaje de grasa corporal y codigo de masa corporal)
- Reparta el Cuestionario Final (Posttest)

Reposo (10 min)
Hable sobre las siguientes preguntas de la leccion pasada: Semana #3- Carbohidratos, Protein as y Grasas:
“¿Cuáles son algunos cambios que han hecho en su casa sobre los temas de la leccion pasada?”
“¿Quien ha hecho un cambio saludable desde la ultima leccion?”
“¿Quien hizo la receta para su familia?”

Leccion de nutricion: (30 min)

Ideas al hacer sus compras:
- Tiendas etnicas y Farmer’s Markets – compra en sus tiendas y Farmer’s Markets mas cercanas para alimentos de mayor calidad y a menor precio.
- Frutas y verduras congeladas – compralas congeladas cuando las frescas son muy caras.
- Planea con tiempo – piensa en las comidas que quieres cocinar, considera lo que ya tienes en tu casa, y crea una lista para ir a la tienda.
- Cupones – usa cupones para alimentos y productos que compras seguido (ej: El “LA Times” de los domingos siempre tiene muchos cupones).
- Compara precios – compara precios de diferentes marcas y considera aquellos productos que son de la misma tienda.
- Solo lo que necesitas – compra solo lo que necesitas y puedes guardar en tu cocina.

Comiendo afuera- decisiones saludables:
“¿Es posible comer fuera de manera saludable?”
- Hay varias cosas que pueden hacer para mantenarse saludable comiendo fuera.
- No tengas miedo de pedir: Ejemplos: “Mas tomate” “aderezo al lado”, “Mostaza en vez de mayonesa”
- Pide salsas, dressings, o gravy al lado
- Comparte con alguien, pide la mitad de la porcion, o lleva el resto de la comida a su casa.
- Pide leche baja en grasa o sin grasa en lugar de leche entera.
- Cuando come pasta, pide salsa de tomate o sopas de vegetales en lugar de salsas cremosas.
- Recuerde que las salsas cremosas y el gravy tienen bastante grasa.
- Cuando come pasta, pide salsa de tomate o sopas de vegetales en lugar de salsas cremosas.
  Recuerde que las salsas cremosas y el gravy tienen bastante grasa.
- Para el postre pide fruta fresca como una buena opcion en lugar de helados y pasteles de alta cantidad de grasa.
- Elige comidas a la parilla, al vapor, hervidas, o asadas, en lugar de crocantes o fritas.
- Pide aperitivos son mas pequeños que los platos principales y ayudan a controlar las porciones.
• Los buffets no son los mejores lugares ya que no te ayudan a controlar porciones y hacen que elijas comidas que no son tan saludables. Trata de evitarlos o ir de vez en cuando.
• Para los “sides” o acompañamientos elige vegetales al vapor o ensaladas en lugar de arroz o pasta ya que tienen demasiado almidón.
• Trata de evitar el pan y la mantequilla.
• Elige agua, agua mineral, o jugos de fruta naturales y frescos en lugar de sodas.
• Coma mas pescado y pollo y menos carne roja.
• Trata de disminuir la cantidad de salsas muy saladas, soya, barbecue, y teriyaki para bajar la cantidad de sal (sodio).

Sugerencias para comer en fiestas y ocasiones especiales:
• Trae un plato saludable para compartir (ensalada, pasta integral, plato de frutas)
• Invita a tu familia y amigos a TU casa – así tienes más control sobre las comidas que sirves.
• Llega un poco más tarde – para evitar comer demasiados chips o otros snacks del principio (antes de la comida)
• Sugerencias para comer en fiestas y ocasiones especiales
• Come antes de ir – comer un snack saludable en tu casa antes de ir puede ayudar a prevenir a comer demasiado después
• Come despacio
• Limita la cantidad de alcohol (150 calorías en una Corona)
• Concentrate en actividades y no en la comida – después de todo, el festejo se trata de pasar lindos momentos con la familia y amigos, no se trata de la comida.

Preguntas para los participantes: (20 min)
Estas preguntas serán importantes para colectar las opiniones y ideas de parte de los participantes para mejorar el programa.
1. ¿Cómo puede ser cambiado o mejorado este programa para que sea más útil para usted?
2. ¿Qué partes del programa fueron más útiles?
3. ¿Qué partes del programa fueron menos útiles?

1. ¿Fue la primera vez que ha participado en Zumba?
2. ¿Qué fue lo que le gusto de Zumba? Que no le gusto?
3. ¿Cree que la coreografía de Zumba fue muy difícil? Muy fácil?
4. ¿Qué otro tipo de ejercicio/actividad física le gustaría aprender durante clases de nutrición?

Conclusion (5 min)
• Pregunte a los participantes que fue lo más importante que aprendieron de las lecciones (si hay suficiente tiempo).
• Recuerde a los participantes que deben establecer metas que sean específicas y realistas que realmente puedan alcanzar poco a poco.
• Reparta los libros de recetas, tarjetas de regalo y los folletos.
• Feliciteles por completar el programa y agradezcales su participación.

Actividad Física (25 min):
Zumba: Songs- Tigre Merengue by Zumba Fitness, Cumbia Tribalera (El Pelon del Microphone) by Violento, Trakalosa and DJ Morphius, Que te Pica by Notch and Rosa by Carlos Vives

Demostración de comida (20 min)
• POTLUCK: Los participantes van a traer un platillo favorito que es saludable y delicioso para compartir con la clase. Pueden compartir la receta con la clase especialmente si cambiaron la receta para hacer el platillo más saludable.
References
Leccion: Semana #5 – Repaso Final

Objetivos
Despues de esta clase, los participantes podran:
1. Repasar los 5 componentes de MiPlato.
2. Buscar y leer el contenido de la informacion de las etiquetas de alimentos.
3. Analizar las porciones apropiadas de las comidas usando sus manos o objetos comunes (ej. pelota de tenis)
4. Compartir sus ideas sobre el programa y ofrecer opiniones en como mejorar el programa.
5. Compartir cambios saludables que han hecho con su familia sobre sus habitos de comer, de cocinar y actividad fisica.
6. Compartir sus areas de dificultad y describir como el programa a ayudado o afectado su familia.

Actividad/ Metodo de Evaluacion (20 min)
• Colecta informacion (estatura, peso, porcentaje de grasa corporal y codigo de masa corporal)
• Reparta el Cuestionario Final (Posttest)
• Prepara los asistentes para preguntar cada participante “¿En su opinion, en que manera a ayudado este programa a su familia/ sus hijos?”

Re paso (25 min)
• Haga las siguientes preguntas sobre las lecciones anteriores para el juego Jeopardy de Nutricion:

Semana #1 – Introduccion a MiPlato, Control de Porciones, Los Beneficios del Agua y el Ejercicio
Semana #2 – Etiquetas de Alimentos, Frutas, Verduras y Productos Lácteos
Semana #3 – Carbohidratos, Proteinas y Grasas
Semana #4 – Repaso, Consejos Para ir de Compras, Comer Fuera de Casa y Comer Saludable Durante Ocasiones Festivas
- Reparta los Cuestionarios Finales despues de Jeopardy de Nutricion

Preguntas para los participantes: (20 min)
Anime a los participantes que compartan sus opiniones o ideas:

1. ¿Cuales son algunos de los cambios que haz aprendido del programa para preparar comidas mas saludables para tu familia?
2. ¿Cuales son algunos cambios que haz hecho con tu familia sobre sus maneras de comer mas saludablemente despues del programa?
3. ¿Cuales son algunos cambios que haz hecho con tu familia sobre sus actividades fisicas despues del programa?
4. ¿En su opinion, en que manera a ayudado este programa a su familia/ sus hijos?

Reparta los siguientes folletos y explica cada uno:
1. Lista de Farmer’s Markets
2. MiPlato
3. Opciones Mas Saludables

Conclusion (10 min)
• Pregunta los participantes cual fue lo mas importante que aprendieron de las lecciones (si hay suficiente tiempo).
Recuerda los participantes que deben establecer metas que sean específicas y realistas que realmente puedan alcanzar poco a poco.

- Reparta los libros de recetas, tarjetas de regalo y los folletos.
- Felicitarlos por completar el programa y agradecerles su participación.

**Actividad Física (30 min)**

**Zumba Songs:** Tigre Merengue, La Vaca, Krazy by Pitbull, and Rosa by Carlos Vives

**Demostración de comida (10 min)** - Ensalada de edamame con galletas saladas (Receta de Luisa Sabogal)

**Referencias:**
APPENDIX C

A Taste of Good Health/ SODI- Fall 2012
Waiver Release

In consideration of your accepting my entry in this program or activity, I do hereby assume all of the risks and hazards incidental to the conduct of said activity insofar as it relates to my participation. I do hereby release, absolve and hold harmless the SODI and Taste of Good Health staff and volunteers. I do hereby assume responsibility therefore, and hereby waive any and all claims for damages or loss against the SODI and Taste of Good Health staff and volunteers. In addition, I hereby grant the SODI and Taste of Good Health program to use photographs taken of me while participating in this community health program to use in educational presentations and research, which will be conducted hereafter without notifying me.

SIGNATURE OF PARTICIPANT

X______________________________ Date: __________

Name: ______________________ Home Phone: ______________________
Emergency Contact: _______________ Phone: ______________________

Medical Information (Please list any conditions, allergies, medications, etc.)
_______________________________________________________________
_______________________________________________________________

The following physical disabilities should be noted (If none, please note)
_______________________________________________________________
_______________________________________________________________
En consideracion que ustedes acepten mi forma en la actividad seleccionada, yo por el presente asumo todos los riesgos y peligros casuales por el comportamiento de mi participacion segun la actividad. Yo por el presente asumo, absuelvo indemnizo y tengo por inofensivo los coordinadores voluntarios de SODI y Taste of Good Health y calquiera o todos de cualquier daño y/o resonsabilidad que sumergan con respeto a mi participacion en dicha actividad. En el evento de un accidente, herida o enfermedad del participante nombrada arriba, el consentimiento por el presente se da para cualquier examen medico que sea necesario. Yo me hago responsable por los gastos medicos.

FIRMA DE PARTICIPANTE

X__________________________ Fecha: __________

Nombre: ___________________ Telefono en casa: __________________
En caso de emergencia notificar a: ___________ Telefono: ____________

Informacion Medica (favor de indicar si hay alguna condicion medica):

_______________________________________________________________________________
_______________________________________________________________________________

Favor de indicar si hay alguna discapacidad (Si no, tambien de indicar):

_______________________________________________________________________________
_______________________________________________________________________________
# APPENDIX D

## Jeopardy Review Questions- Week 3

<table>
<thead>
<tr>
<th>English</th>
<th>Spanish</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Name 3 health benefits of fiber. (Regularity, helps reduce cholesterol levels, helps control blood sugar levels, helps you feel full for longer, more vitamins and minerals)</td>
<td>1. Cuales son 3 beneficios de la fibra? (Regularidad, ayuda a reducir los niveles del colesterol, ayuda a controlar los niveles de azúcar en la sangre, mas vitaminas y minerales, ayuda sentirse mas llenos...)</td>
</tr>
<tr>
<td>2. Vitamin D is in milk- True or False? (True)</td>
<td>2. La vitamina D se encuentra en la leche- verdad o falso? (Verdad)</td>
</tr>
<tr>
<td>3. Vitamin D helps the body absorb what mineral? (Calcium)</td>
<td>3. La vitamina D ayuda que el cuerpo absorba cual mineral? (Calcium)</td>
</tr>
<tr>
<td>4. Name 4 protein sources. (Fish, meat, soy, tofu, nuts, beans, chicken, turkey, quinoa)</td>
<td>4. Cuales son 4 comidas que tienen proteina? (pescado, carne de res, tofu, soya, nueces, frijoles, pollo, pavo, quinoa)</td>
</tr>
<tr>
<td>5. _______ - of your plate needs to be fruits and vegetables. (Half)</td>
<td>5. _______ - de su plato tiene que ser frutas y vegetales. (Medio)</td>
</tr>
<tr>
<td>6. The palm of your hand is about how many ounces? (3 oz)</td>
<td>6. La palma de su mano es aproximadamente cuantas onzas? (3 onzas)</td>
</tr>
<tr>
<td>7. How many minutes of exercise should a person do to stay healthy? (30 minutes)</td>
<td>7. Por cuanto tiempo uno tiene que estar activo para mantener su salud? (30 minutos)</td>
</tr>
<tr>
<td>8. How many cups of water are recommended/day? (8-10)</td>
<td>8. Cuantos vasos de agua estan recomendados al dia? (8 a 10)</td>
</tr>
<tr>
<td>9. Calcium helps prevent which disease? (Osteoporosis)</td>
<td>9. El calcio previene cual enfermedad? (Osteoporosis)</td>
</tr>
<tr>
<td>10. The _______ fats may cause artery blockage. (Saturated and Trans Fat)</td>
<td>10. Las grasas _______ puede causar que las arterias se bloqueen. (Grasas saturadas y trans)</td>
</tr>
<tr>
<td>11. Normal Blood Pressure= _<strong>/</strong>. (120/80)</td>
<td>11. La presion saludable deberia ser alrededor de _<strong>/</strong>. (120/80)</td>
</tr>
<tr>
<td>12. Name the 5 components of MyPlate. (Grains, Protein, Dairy, Fruits and vegetables.)</td>
<td>12. Nombra los cinco componentes de MiPlato. (Granos, proteina, productos lacteos, frutas y verduras)</td>
</tr>
<tr>
<td>English</td>
<td>Spanish</td>
</tr>
<tr>
<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td>13. The ________ on different foods can help make healthier choices when grocery shopping. (Nutrition Facts Label)</td>
<td>13. Las ________ ayudan a elejir opciones mas saludables en el mercado. (Etiquetas Alimenticias)</td>
</tr>
<tr>
<td>14. Name 4 healthy changes that a person can make to prevent heart disease. (Follow MyPlate, exercise, eat less fat/ sodium, check blood pressure regularly)</td>
<td>14. Nombra 2 cosas que uno puede hacer para prevenir las enfermedades del corazon. (MiPlato, ejercicio, comer menos sodio o grasa, visitar el doctor, chequeos regulares de la presion)</td>
</tr>
<tr>
<td>15. Biking over 10 mph is a moderate exercise- true or false? (False- it is vigorous physical activity.</td>
<td>15. Andando de bicicleta mas rapido que 10 mph es ejercicio moderado- verdad o falso? Falso- es ejercico vigoroso.</td>
</tr>
<tr>
<td>16. Instead of milk, what can a person with lactose intolerance drink/ eat to get their calcium? Name 4 types. (Soy, almonds, sardines, broccoli, corn tortillas, enriched/ fortified foods.)</td>
<td>16. En vez de leche, cuales son buenas comidas con bastante calcio? Nombra 4 tipos. (Soya, almendra, sardinas, brocoli, tortillas de maiz, comidas enriquecidas con calcio.)</td>
</tr>
<tr>
<td>17. Describe a Farmer’s Market. (Can buy organic fruits and vegetables, try new foods, get to meet the farmers themselves, free samples.)</td>
<td>17. Describa un mercado de granjero. (Un mercado al aire libre para comprar comidas organicas, probar nuevas comidas, hablar con los granjeros, muestras gratis.)</td>
</tr>
<tr>
<td>18. How many milligrams of Calcium are recommended for a pregnant woman? (1200 Mg)</td>
<td>18. Una mujer embarazada necesita cuantos miligramos de calcio? (1200 Mg)</td>
</tr>
<tr>
<td>19. What is the hormone produced by the pancreas that breaks down sugar in the body? (Insulin)</td>
<td>19. Cual hormona producido por el pancreas ayuda el cuerpo usar la azucar en la sangre? (Insulina)</td>
</tr>
<tr>
<td>20. Name 3 foods that are high in Omega 3s. (Fish, walnuts, flax, soy, tofu, canola oil, sunflower oil)</td>
<td>20. Nombra 3 comidas que son buenas fuentes de los Omega 3. (pescado, nueces, linaza, tofu, aceite de canola, aceite de girasol)</td>
</tr>
</tbody>
</table>
APPENDIX E
Farmer’s Markets Locations - English

Farmer’s Markets

**Burbank**
Open year-round: in the City Hall Annex parking lot between Third St. and Orange Grove. Saturdays 8AM-12:30PM

**Canoga Park**
Open year-round: between Owensmouth St. and Sherman Way. Saturdays 9AM-1PM

**Chatsworth**
Open year-round in the parking lot of the Holy Shepherd of the Hills Church: 10347 Mason Ave. Saturdays 9AM-2PM

**Encino**
17400 Victory Blvd. Sundays 8AM-1PM

**Glendale**
Open year-round: between Broadway St. and Wilson St. in Glendale. Thursdays 9:30AM-1PM

**Northridge**
Open from March to October: Northridge Mall 9301 Tampa Ave Wednesdays 5PM-9PM

**Panorama City**
Kaiser Permanente Hospital: 13952 Cantara St. in front of the North Building. Wednesdays 9AM-1PM

**Santa Clarita**
Open year-round: On Main Street between Market St and 6th Street. Thursdays 3PM-7PM

**Sherman Oaks**
Open year-round: In the Westfield Fashion Square Parking Lot between Riverside St. and Woodman Ave. Tuesday 3PM-8:30PM

**Woodland Hills**
Open year-round at the Kaiser Permanente: 5601 De Soto Ave. Thursday 10AM-2:30PM
Farmer’s Markets

**Burbank**
Abierto todo el año en el estacionamiento atras del City Hall Annex entre Third Street y Orange Grove. Sábados 8AM-12:30PM

**Canoga Park**
Abierto todo el año: entre las calles Owensmouth Ave y Sherman Way. Sábados 9AM-1PM

**Chatsworth**
Abierto todo el año en la Iglesia Holy Shepherd: 10347 Mason Ave. Sábados 9AM-2PM

**Encino**
17400 Victory Blvd. Domingos 8AM-1PM

**Glendale**
Abierto todo el año: 100 cuadras de North Brand Blvd entre las calles Broadway y Wilson en Glendale. Jueves 9:30AM-1PM

**Northridge**
Northridge Mall: 9301 Tampa Ave de Marzo a Octubre. Miercoles 5PM-9PM

**Panorama City**
En el hospital Kaiser Permanente: 13852 Cantara St. en frente del edificio North 3. Miercoles 9AM-1PM

**Santa Clarita**
Farmer’s Market en Newhall de todo el año: en la calle Main entre Market St y 8th St. Jueves 3PM-7PM

**Sherman Oaks**
Abierto todo el año en el estacionamiento del Westfield Fashion Square entre las calles Riverside y Woodman. Martes 3PM-8:30PM

**Woodland Hills**
Farmer’s Market de todo el año en el hospital Kaiser Permanente: 5601 De Soto Ave. Jueves 10AM-2:30PM
Healthier Options

If you have time to cook at home:
- Double the recipe and freeze the extra portions to serve on a busy evening.
- Make sure you put leftovers to good use.
- Make a list of foods and easy dinners that your child likes.

When you are short on time, keep the meal simple:
- Use ready-made broiled chicken with a vegetable (canned, fresh or frozen).
- Prepare a simple pasta dish, add a salad, glass of milk and a fruit.
- Prepare sandwiches with a bowl of soup.
- Use pizza kits with pre-shredded cheese, add mushrooms and onions.

<table>
<thead>
<tr>
<th>Instead of:</th>
<th>Choose:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whole milk</td>
<td>1% or 2% Reduced Fat or Nonfat</td>
</tr>
<tr>
<td>Sour cream</td>
<td>Light sour cream or light yogurt</td>
</tr>
<tr>
<td>Ground beef</td>
<td>Ground turkey</td>
</tr>
<tr>
<td>Chicken drumstick</td>
<td>Chicken breast</td>
</tr>
<tr>
<td>Whole egg</td>
<td>2 egg whites</td>
</tr>
<tr>
<td>Juice, Soda or Gatorade</td>
<td>Water with lemon, Crystal Light</td>
</tr>
<tr>
<td>White Bread or Pasta</td>
<td>100% whole wheat bread and pasta</td>
</tr>
<tr>
<td>Regular Dressing</td>
<td>Light dressing or Vinegar with olive oil, Lemon</td>
</tr>
<tr>
<td>Ice Cream</td>
<td>Frozen grapes or bananas</td>
</tr>
<tr>
<td>Canned food</td>
<td>Canned food that is “No Salt Added,” “Low Sodium,” or “Very Low Sodium”</td>
</tr>
<tr>
<td>Frying</td>
<td>Bake, Steam, Grill, BBQ, Microwave</td>
</tr>
<tr>
<td>Stock Cubes (ex: Knorr Suiza)</td>
<td>Use herbs and spices for seasoning</td>
</tr>
<tr>
<td>Lots of meat</td>
<td>Use more vegetables, beans and legumes</td>
</tr>
</tbody>
</table>
Opciones mas saludables!

Si tiene tiempo para cocinar:
- Duplique la receta y congela la porción extra para servirla en un día ocupado.
- Asegúrese de darle buen uso a la comida que le sobra.
- Haga una lista de alimentos y comidas sencillas que le gusten a su hijo.

Si cuenta con poco tiempo, haga una comida sencilla:
- Combina un pollo que compra ya asado con vegetales (de lata, frescos o congelados).
- Prepara un secillo platillo de pasta. Añada una ensalada, un vaso de leche y fruta.
- Haga sandwiches y sirvalos con un plato de sopa.
- Compra English muffins y ponga salsa marinara con queso, champiñones y otros vegetales para hacer pizzas individuales en el horno.

<table>
<thead>
<tr>
<th>En vez de:</th>
<th>Choose:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leche entera</td>
<td>1% o 2% grasa reducida o descremada</td>
</tr>
<tr>
<td>Crema agria (sour cream)</td>
<td>Crema light o yogurt griego light</td>
</tr>
<tr>
<td>Carne molida de res</td>
<td>Carne molida de pollo o pavo</td>
</tr>
<tr>
<td>La pierna de pollo</td>
<td>La pechuga de pollo</td>
</tr>
<tr>
<td>Huevo entero</td>
<td>2 claras de huevo</td>
</tr>
<tr>
<td>Jugo, Soda o Gatorade</td>
<td>Agua con limon o aguas naturales con poca azucar</td>
</tr>
<tr>
<td>Pan blanco o pasta de harina blanca</td>
<td>Pan o pasta de 100% trigo entero</td>
</tr>
<tr>
<td>Aderezo regular</td>
<td>Aderezo light o vinagre con poco de aceita de oliva</td>
</tr>
<tr>
<td>Nieve regular</td>
<td>Uvas o platano congelados</td>
</tr>
<tr>
<td>Comida enlatada</td>
<td>Que diga “Bajo en sodio” o “Sin sodio”</td>
</tr>
<tr>
<td>Freir</td>
<td>Hornear, al vapor, a la plancha, BBQ, en el microondas</td>
</tr>
<tr>
<td>Consome de pollo o res</td>
<td>Usar hierbas y especias para sazonar</td>
</tr>
<tr>
<td>Usar mucha carne o arroz</td>
<td>Usar mas veraturas, frijoles y legumbres</td>
</tr>
</tbody>
</table>

"A Taste of Good Health," Fall 2012
# APPENDIX G

Follow-up Jeopardy Review Questions - Week 12

<table>
<thead>
<tr>
<th></th>
<th>English</th>
<th>Spanish</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.</td>
<td>What is the first item to look for on a Nutrition Facts Label? &lt;br&gt; a. Calories  b. Total Fat  c. Portion Size  d. Total Sugar (Portion Size)</td>
<td>2. (Que es lo primero que debe tener en cuenta al leer las etiquetas de los alimentos? &lt;br&gt; a. Calorias  b. Grasa Total  c. Tamaño de la porcion  d. Total de azucar (Tamaño de la porcion)</td>
</tr>
<tr>
<td>3.</td>
<td>How many portions of fruits and vegetables are recommended per day? &lt;br&gt; a. 1-2 portions  b. 3-4 portions  c. 6 or more portions (6 or more options)</td>
<td>3. Cuantas porciones totales de frutas y vegetales se necesita por día? &lt;br&gt; a. 1-2 porciones  b. 3-4 porciones  c. 6 o mas porciones (6 o mas porciones)</td>
</tr>
<tr>
<td>4.</td>
<td>What is the minimum amount of time recommended to exercise? &lt;br&gt; a. 10 minutes  b. 30 minutes  c. 40 minutes  d. 1 hour (30 minutes)</td>
<td>4. Cual es la cantidad minima de ejercicio que debe hacer por dia? &lt;br&gt; a. 10 minutos  b. 30 minutos  c. 40 minutos  d. 1 hora (30 minutos)</td>
</tr>
<tr>
<td>5.</td>
<td>Dairy products contain what vitamin that helps the body absorb calcium? (Vitamin D)</td>
<td>5. Productos lacteos contienen cual vitamina que ayuda el cuerpo absorber el calcio? (Vitamina D)</td>
</tr>
<tr>
<td>6.</td>
<td>Name 3 functions that protein helps with in the body. (Repairs muscles, supports muscular growth, organ function)</td>
<td>6. Nombra 3 funciones de la proteina en el cuerpo. (Repara los tejidos, fomenta el crecimiento muscular, mejora el funcionamiento de los organos)</td>
</tr>
<tr>
<td>7.</td>
<td>Name 3 tips that can help when eating out. &lt;br&gt; (Dressing on the side, grilled/steamed/BBQ foods, avoid fried foods, pick fruits and frozen yogurt as healthier desserts...)</td>
<td>7. Nombra 3 consejos para elijir opciones saludables en un restaurant/comida rapida. &lt;br&gt; (Aderezo al lado, comida a la parilla/ al vapor/BBQ, evitando la comida frita, frutas y helado yogur como postre...)</td>
</tr>
<tr>
<td>8.</td>
<td>True or False: Buying fruits and vegetables that are frozen are a good option to buy at the grocery store. (True)</td>
<td>8. Verdad o Falso: Comprando frutas y verduras congeladas son una buena opcion para comprar en el mercado. (Verdad)</td>
</tr>
<tr>
<td>9.</td>
<td>Name 4 ideas to help increase physical activity levels. &lt;br&gt; (Join a walking group, use the stairs, park farther away, play with the kids, sports, biking...)</td>
<td>9. Nombra 4 ideas para aumentar su nivel de actividad fisica. &lt;br&gt; (Unirse a un grupo de caminar, usar las escaleras, estacionarse mas lejos, jugando con los niños, deportes, usando la bicicleta...)</td>
</tr>
<tr>
<td>10.</td>
<td>Eating breakfast everyday can help you maintain/lose weight. (True)</td>
<td>10. Comiendo desayuno diariamente ayuda a mantener su peso: Verdad o Falso. (Verdad)</td>
</tr>
<tr>
<td>11.</td>
<td>Why is Marinara sauce a healthier alternative to Alfredo sauce? &lt;br&gt; (Marinara has more vegetables, vitamins and minerals, while Alfredo has more fat and calories.)</td>
<td>11. Porque es una mejor opcion elejir la salsa marinara en vez de la salsa alfredo? (Marinara tiene mas vegetales, vitaminas y minerales mientras que la salsa alfredo tiene mas grasa y calorías.)</td>
</tr>
<tr>
<td>English</td>
<td>Spanish</td>
<td></td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>12. Name 5 healthy snacks that one can choose. (hummus and sliced</td>
<td>12. Nombra 5 aperitivos/ snacks saludables que uno puede comer. (hummus y</td>
<td></td>
</tr>
<tr>
<td>vegetables, fruit, granola bars, string cheese, yogurt...)</td>
<td>vegetales, frutas, barras de granola, barritas de queso, yogur..)</td>
<td></td>
</tr>
<tr>
<td>13. Whole milk vs. 2% milk = what are the differences? (Less calories</td>
<td>13. La leche entera vs. la leche 2% = cuales son las diferencias? (Menos</td>
<td></td>
</tr>
<tr>
<td>and fat, but the same amount of vitamins and minerals.)</td>
<td>calorías, menos grasa total pero lo mismo de vitaminas y minerales.)</td>
<td></td>
</tr>
<tr>
<td>14. Name 3 lifestyle changes one can make to avoid high blood pressure</td>
<td>14. Nombra 3 cambios que uno puede hacer para evitar la alta presión. (</td>
<td></td>
</tr>
<tr>
<td>(Reduce salt intake, exercise, utilize MyPlate method, stop smoking...)</td>
<td>Disminuir la sal, hacer ejercicio, comer a MiPlato, parrar de fumar...)</td>
<td></td>
</tr>
<tr>
<td>15. True or False: Meat contains iron and vitamin B. (True)</td>
<td>15. Verdad o Falso: La carne contiene hierro y las vitaminas B. (Verdad)</td>
<td></td>
</tr>
<tr>
<td>16. This type of diabetes can be diagnosed at the age of 25, especially</td>
<td>16. Esta forma de diabetes se puede diagnosticar a la edad de 25 años</td>
<td></td>
</tr>
<tr>
<td>and has family members with diabetes. (Type II Diabetes)</td>
<td>especialmente cuando uno está sobrepeso y también tiene familiares con</td>
<td></td>
</tr>
<tr>
<td></td>
<td>diabetes: (Diabetes tipo 2)</td>
<td></td>
</tr>
<tr>
<td>17. The numbers 150/90 is a healthy result for one’s blood pressure:</td>
<td>17. Los números 150/90 es un resultado saludable para la presión:</td>
<td></td>
</tr>
<tr>
<td>True or False. (False)</td>
<td>Verdad o Falso. (Falso)</td>
<td></td>
</tr>
<tr>
<td>18. Quinoa is a good source of _____ and _______. (Protein and</td>
<td>18. La Quinoa es una buena fuente de _____ y _______. (Proteina y</td>
<td></td>
</tr>
<tr>
<td>Carbohydrates)</td>
<td>Carbohidratos)</td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX H

Quick and Healthy Recipes: Compiled by Luisa Sabogal

Chickpea, Tomato and Feta Salad!

**Ingredients:**
1/4 cup canned chickpeas
1/2 cup quartered cherry tomatoes
1/4 cup crumbled feta
1 tablespoon fresh lemon juice
2 teaspoons olive oil
1 teaspoon dried oregano
1/8 teaspoon salt
Ground pepper

**Cooking Instructions:**
Rinse and drain chickpeas. In a bowl, combine chickpeas with tomatoes, feta, lemon juice, olive oil, oregano, salt, and a pinch of pepper. Serves 1.

**FUN NUTRITION FACT!**
Garbanzo beans are GREAT for your heart and are rich in fiber

Ensalada de Garbanzos, Tomate y Queso Feta!

**Ingredientes:**
1/4 taza de garbanzos enlatados
1/2 taza de tomates cereza en cuartos
1/4 taza de feta desmenuzado
1 cucharade de jugo de limón
2 cucharaditas de aceite de oliva
1 cucharadita de hojuelas de orégano
1/8 cucharadita de sal
Pimienta negra

**Modo de Preparación:**
Enjuagar y colar los garbanzos. En un tazón combinar garbanzos y tomate, feta, jugo de limón, aceite de oliva, hojuelas de orégano, sal, y pimienta. Servir a 1 persona.

**INFORMACION DE LA NUTRICION DIVERTIDA!**
Los garbanzos son muy buenos para el corazón y son ricos en fibra.

Black Bean and Quinoa!

Ingredients:
1/3 cup quinoa 1 cup water
1 teaspoon olive oil
4 teaspoons fresh lime juice
1/4 teaspoon cumin
1/4 teaspoon coriander
1 tablespoon fresh minced cilantro
2 tablespoons minced scallions
1 (15 ounce) can black beans, rinsed and drained
2 cups diced tomatoes
1 cup diced bell pepper
2 teaspoons minced jalapeño chiles
salt and pepper

Cooking Instructions:
Cook the quinoa in the water. In a large bowl, combine the oil, lime juice, cumin, coriander, cilantro and scallions. Stir in the beans, tomatoes, bell peppers and chilies. Add the cooled quinoa. Season with salt and pepper to taste. Serve cold. Serves 4-6.

FUN NUTRITION FACT!
Quinoa is GREAT brain food and is a great protein source.

http://low-cholesterol.food.com/recipe/quinoa-black-bean-salad-152136

Quinoa con Frijoles Negros!

Ingredientes:
1/3 taza de quinoa, 1 taza de agua
1 cucharadita de aceite de oliva
4 cucharaditas de jugo de limón
1/4 cucharadita de comino
1/4 cucharadita de semillas de cilantro
1 cucharadita de cilantro fresco picado
2 cucharaditas de cebolleta picada
1 (15 onzas) frijoles negros en lata, enjuagados y colados
2 tazas de tomates en cuadraditos
1 taza de pimentón en cuadraditos
2 cucharaditas de jalapeño picados
sal y pimienta negra

Modo de Preparación:
Cocinar la quinoa en agua. En un tazón grande, combina el aceite, jugo de limón, comino, semillas de cilantro, cilantro y cebolleta. Revuelve los frijoles, tomates, pimentón y chiles. Agrega la quinoa fría. Sazonar con sal y pimienta negra. Servir a 4-6 personas.

INFORMACION DE LA NUTRICION DIVERTIDA!
La quinoa es una comida muy buena para el cerebro y también es una proteína completa.

http://low-cholesterol.food.com/recipe/quinoa-black-bean-salad-152136
**Autumn Apple Salad!**

**Ingredients:**

- 4 tart green apples, cored and chopped
- 1/4 cup blanched slivered almonds, toasted
- 1/4 cup dried cranberries
- 1/4 cup chopped dried cherries
- 1 (8 ounce) container vanilla yogurt

**Cooking Instructions:**

In a medium bowl, stir together the apples, almonds, cranberries, cherries and yogurt until evenly coated. Serves 4-6.

**FUN NUTRITION FACTS!**

*Apples are AMAZING for your bones and heart.*

http://recipes.kaboose.com/autumn-apple-salad.html

---

**Ensalada de Manzana!**

**Ingredientes:**

- 4 manzanas verdes, picadas
- 1/4 taza tajadas de almendras tostadas
- 1/4 taza arándanos secos
- 1/4 taza cerezas seca picada
- 1 (8 onzas) yogurt de vainilla

**Modo de Preparación:**

En un tazón mediano revolver la manzanas, almendras, arándanos, cerezas y yogurt. Servir a 4-6 personas.

**INFORMACION DE LA NUTRICION DIVERTIDA!**

*Las manzanas son muy buenas para los huesos y el corazón*

http://recipes.kaboose.com/autumn-apple-salad.html
**Edamame Salad**

**Ingredients:**
- 1/2 lb Frozen shelled edamame
- 3 cups frozen petite corn kernels
- 1 chopped red bell pepper
- 3/4 cup sliced green onion
- 1/2 cup chopped red onion
- 2 tbsp oregano or basil

**For the dressing:**
- 1/3 cup fresh lemon juice
- 2 tbsp Dijon mustard
- 2 tbsp olive oil
- 3/4 tsp salt
- 3/4 tsp fresh ground black pepper

**Directions:**
1. Prepare edamame according to package directions. Drain and rinse with cold water. Set aside to drain thoroughly.
2. Combine edamame, corn, red bell pepper, green onion, red onion and oregano.
3. In a large bowl, whisk lemon juice, mustard, olive oil, salt and pepper. Add veggies to bowl and toss to coat. Refrigerate until ready to serve.

*Edamame are a good source of protein and antioxidants to help prevent cancer and strengthen the immune system.*

Recipe from [http://www.food.com/recipe/edamame-salad-175799](http://www.food.com/recipe/edamame-salad-175799)

---

**Ensalada de Edamame**

**Ingredientes:**
- 1/2 libra de edamame congelados
- 3 tazas de pote congelado
- 1 chile de campana rojo picado
- 3/4 taza de cebolla verde picada
- 1/2 taza de cebolla roja picada
- 2 cucharaditas de oregano o albahaca

**Paso el aderezo:**
- 1/3 taza jugo de limón
- 2 cucharadas de mostaza Dijon
- 2 cucharadas de aceite de oliva
- 3/4 cucharadita de sal

**Direcciones:**
1. Prepara el edamame a las direcciones del paquete. Enjuaga con agua fría y déjalo escurrir.
2. Combina el edamame, chile, chile campana rojo, cebolla verde, cebolla roja y oregano.
3. En un plato grande, combina el jugo de limón, mostaza, aceite de oliva, sal y pimienta. Agrégale los vegetales en el plato con el aderezo. Refrigere antes de servir.

*El edamame es una buena fuente de proteínas y antioxidantes que ayudan a prevenir el cancer y fortalece el sistema inmunológico.*

APPENDIX I

ATOGH Participant Testimonials in response to the following question:
“From your perspective, how has this program benefitted your children?”
(Week 12)

Haskell Elementary (School #1)

Quote 1: Aprendí mucho sobre la nutrición y como comer mejor. Controlando el tamaño de nuestra porciones alimenticias es un logro de la familia y también el haber eliminado las Sabritas y soda de nuestra dieta. Hasta los niños están siguiendo el ejemplo. Cuando vamos al super mercado los niños hacen mejores selecciones. También estamos intentando de incorporar el ejercicio pero es difícil encontrar tiempo para hacerlo.

Translation 1: I’ve learned a lot about nutrition and trying to eat better. Controlling the portion size of our foods is an accomplishment for our family but also eliminating chips and soda from our diet. Even the kids are following along and when we go to the supermarket they make better choices. We’re also trying to find a way to incorporate exercise although it’s difficult to find a time for it.

Quote 2: Este program ha ayudada en varias maneras porque mis hijos están comiendo más ensalada y brócoli, y vegetales. También hemos reducido las porciones de papa y arroz.

Translation 2: It has helped in many ways because children are eating more salad, broccoli, and vegetables. We also serve reduced the portions of potatoes and rice.

Quote 3: We eat healthier, less junk food. We used to have macaroni and cheese once a week and since the class started I can’t remember when we last had it. My husband was a big fan of chips but since attending one class he hasn’t bought any and said they needed to get rid of them (at home).

Translation 3: Comemos más saludable y menos comida chatarra. Antes comíamos macaroni con queso una vez a la semana pero desde que empezó la clase, no recuerdo la última vez que la hayamos comido. Mi esposo era un gran fan de las sabritas pero desde que asistió a una clase no ha comprado más y dijo que necesitábamos eliminarlas (de nuestro hogar).

Napa Elementary (School #2)

Quote 4: “Lo que estoy disfrutando mucho es que estoy compartiendo mucho más tiempo con mis hijos y estamos comiendo juntos y en familia.”

Translation 4: I’m really enjoying spending time with my children and being able to eat our meals as a family.

Quote 5: “Yo disfruto cocinar con mis hijos. Les gusta ayudarme a preparar pizza y me ayudan a poner los ingredientes en la masa.”

Translation 5: I enjoy cooking with my children. They like participating in the preparation of a pizza and often help with addition of ingredients.

Alta Elementary (School #3)

“It has benefited me and my children in many ways. It’s a really good program. I like it because I’ve had weight problems since I was a little girl and people always made fun of me and I like this program because it helps my kids too. I mean to take care of themselves, to eat healthy and do a lot of things like exercise and stuff. I mean I do it more for them than for myself because I don’t want them to have weight problems and go through what I went through with people. So, that is why I’m taking this class so that my kids could learn how to take care of themselves and weight and to exercise and how to eat healthy and how to eat

91
more fruits and vegetables. They love fruits but really I’m the one that doesn’t eat it but they do. They do a lot of nice… I mean they like to eat a lot of salads and all that and its really good for them. I mean I like it because I used to be 300 pounds and this is a good program for ANY person that been overweight that’s had problems like I did, you know, because I don’t want my kids to go through what I went though because I was always punked. I was always being called names because of the weight. I gained weight and lost weight and all that. Because I gained weight and people would call me names and bad words to me and say, ‘You are fat.’ People are mean now and kids are cruel. I think this is a good program for all of us to get our kids together and start eating healthy because I do see overweight kids and it’s pretty sad because these children are more overweight than they were in the 80’s and that’s how I feel. I mean really love this program and I wish you could have it more often and we can have you guys around and we could learn more stuff because I have learned a lot from you guys of the salads, you gave us some booklets where you had recipes and it was good. My kids liked them and it was good recipes. So, we really appreciate you guys giving us the time to show us, the parents and community, how to eat healthy and how to teach our kids to eat healthy and be better so that we could have a better health. Not only dieting but better heart and good healthy body but I really liked this program and you guys did a good job.”

Translation 6: Will do

Quote 7: “Mi familia y yo caminamos como familia y también reducimos las porciones de nuestras comidas. Ahora estoy haciendo ejercicios aeróbicos y Zumba y me siento bien y más ligera. Después de haber pesado lo mismo por 18 años, subí 30 libras en un año y esto me asusto pero ahora estoy perdiendo peso y esto me hace feliz.

Translation 7: My family and I walk as a family now and we also changed our food portions. I am also participating in aerobics and Zumba and I feel great and lighter. After weighing the same for 18 years, I gained 30 lbs within a year and this was alarming but now I am happy I’m losing weight.

Quote 8:

Translation 8: We check our caloric consumption and the nutrition food label. We are also fixing the way we nourish ourselves by adding more fruits and vegetables, less fats and sugar (into our diet) and including more exercise like walking more and using our car less.

Hart Elementary (School # 4)

Quote 9: “Mi hija de 7 años ya aprendió a leer las etiquetas (de nutrición), a leer la cantidad de sodio y de grasas. Además, hemos echo más ejercicio. Vamos a jugar en familia los domingos béisbol y soccer. También ya saben identificar mis hijas las comidas saludable de las no saludables.”

Translation 9: “My 7-year-old daughter learned how to read food labels, to read the sodium content and fats. We also have been doing more exercise. We usually go play baseball and soccer ever Sunday. My daughters also can distinguish healthy foods from the unhealthy ones.”