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ASSESSMENT OF A PILOT NUTRITION EDUCATION PROGRAM FOR HISPANIC YOUTH AND THEIR PARENTS

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ASSESSMENT OF A PILOT NUTRITION EDUCATION PROGRAM FOR HISPANIC YOUTH AND THEIR PARENTS

A Thesis
Presented to
the Graduate School of
Clemson University

In Partial Fulfillment
of the Requirements for the Degree
Master of Science
Food, Nutrition, and Culinary Sciences

by
Maria Mercedes Rossi
August 2008

Accepted by:
Katherine L. Cason, PhD, RD, LD, Committee Chair
Karen A. Kemper, PhD
Joel E. Williams, PhD
ABSTRACT

Obesity and overweight are increasing at epidemic proportions in South Carolina for both adults and children, particularly affecting minority groups. Hispanic populations residing in South Carolina are not the exception. It is important to provide nutrition education, exercise, and behavior interventions as they are the foundations to treat parents and children who are overweight, obese, or are at risk for overweight and obesity. This study used quantitative and qualitative methods to examine the effectiveness of a nutrition and physical activity program, “Jump into Food and Fitness” with the Hispanic population and to determine the effectiveness of the program on knowledge, attitudes and self-reported behaviors among Hispanic youth ages 8 to 11, and their parents; and to describe all the key strategies used in the development and implementation of a nutrition and physical activity program with Hispanic adults. The children’s knowledge scores were compared before and after the intervention. The only statistically significant difference found was between pre-test and post-test (P=.002), post-test and post-delayed test (P=.016) in the comparison group; and between pre-test and post-test (P=0.017) in the treatment group. The qualitative data from the focus group interviews conducted with the parents provided evidence of the importance of receiving a skill-based program that is based on the traditional foods that they consume daily; emphasizing the importance of learning about how to combine foods and the importance of having the family involved in the program. Qualitative data from children surveys revealed what children enjoyed the most was learning about MyPyramid and the Kid’s Activity Pyramid, being active is something fun, and the snacks that they did at the end of each day. The study indicates that the best strategies to develop and implement a program with Hispanics are to make it...
culturally-compatible and translated to Spanish, and to organize the lectures, activities and materials in a way that another person can use it. For the recruitment process it is vital to contact key, trusted people that the community who can establish a person to person relationship with the participants. It is important to make several phone calls to and to show that you are interested in them.
DEDICATION

In memory of my loved father, Guillermo J. Rossi, January 29, 1944-January 21, 2006. He was a great person, father, grandfather and friend. I like to remember him with a smile on his face, making others being happy. He will never be forgotten.
ACKNOWLEDGMENTS

There are so many people I would like to recognize. I would like to express gratitude to my family: Mom, Lorena, Lucila and Juan Pablo, thank you for your unconditional love. To Matias, my beloved husband, thank you for believing in me and supporting me emotionally and spiritually through these two years. My life is not the same since it was touched by yours. I love you!

I would like to say a very special thank you to Dr. Katherine Cason for giving me the opportunity to study at Clemson University under her direction; thank you for your advice, friendship, and all the time you gave me during these years. Second I would like to thank Dr. Sergio Nieto-Montenegro for his friendship, support and advice. This thesis could not have been completed without the participation and support of America Chavez-Martinez and Marta Gamboa-Acuña; thank you also for working and studying with me and thanks for the beautiful friendship that we shared through these past two years. Ame, I would like to say a very special thanks to you for always encouraging me. I would like to express gratitude to the intervention staff who worked with me: Jessica Davis, Leigh Joyner and Rachel Harris and a special thanks to Shannon Baldwin for always being always very helpful.

Finally, I would like also to thanks the other members of my thesis committee: Dr. Joel E. Williams, thank you for your support and guidance during the design, implementation and evaluation of the program and for your assistance with the statistical analysis of the data. A special thanks to Dr. Karen A. Kemper for her expertise and explanations about the exercises used with the children, your suggestions for the design
of the surveys, and your comments on this thesis. I appreciate the time that both of you spent working with me.
PREFACE

This thesis is divided into three sections. The first is the literature review followed by two journal articles. The literature review covers different programs used to prevent childhood obesity, specifically those involving the family. The first article is entitled: “The Impact of Nutrition and Physical Activity Program on Hispanic Youth and their Parents.” Pre-, post-, and post-delayed parent and children surveys were conducted to assess the effectiveness of a nutrition and physical activity program, “Jump into Food and Fitness,” on knowledge, attitudes and self-reported behaviors among Hispanic children when a parental component was added to the original curriculum. In addition, qualitative data were gathered through open-ended question surveys for both children and adults. Focus group interviews were conducted with the parents to assess the effectiveness of the program and the take-home newsletters.

The second article is entitled: “Keys for Implementing Successful Obesity Prevention Programs for Hispanic Youth and their Families. The best strategies utilized during the design and implementation of a nutrition and physical activity program for Hispanic youth and their parents were analyzed. Each of these sections has a corresponding bibliography, and the tables are placed correspondingly with the article.
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CHAPTER ONE

LITERATURE REVIEW

Obesity is a multidimensional and complex condition involving physiological, metabolic, behavioral and social influences. Poor dietary habits and a sedentary lifestyle are some of the environmental factors (Mello, Luft & Meyer, 2004) that contribute to the development of obesity. Obesity is also associated with increased morbidity and mortality. Further, it is estimated that 300,000 deaths each year may be attributed in some way to obesity (US Department of Health and Human Services, 2001).

Body Mass index (BMI) is a practical measure used to determine overweight. It is a measure of weight in relation to height that is used to determine weight status, and correlates with body fatness. For children and adolescents (ages 2-19), BMI can be plotted on the CDC growth chart to determine the corresponding BMI-for-age and-sex percentile. At risk of overweight is defined as BMI at or above 85th percentile while overweight is defined as BMI at or above 95th percentile, for children of the same age and sex. Classifications of overweight for children and adolescent are age-and sex-specific because children’s body composition varies with age and varies between boys and girls (Center for Disease Control and Prevention, 2007).

Childhood obesity has numerous medical consequences. Examples of these connections include adverse blood lipid profile, altered glucose metabolism, obstructive apnea and diseases with long term effects that include augmenting the risk of hypertension, diabetes, gall bladder disease, cardiovascular disease, and osteoarthritis in
adulthood. (Whitaker et al., 1997 & Sharma, 2006). Childhood overweight prevalence has greatly increased for those ages 2-to-5 years from 5.0\% during 1976-1980 to 13.9 \% during 2003-2004. During the same period, the prevalence increased from 6.5\% to 18.8 \% among young people aged 6-11 years, and 5.0\% to 17.4\% for those age 12-19 years (US Department of Health and Human Services, 2008).

Primary prevention of obesity and overweight is important as a treatment. Research conducted by the National Health Blood Institute (1988), shows that weight loss reduces glucose levels in overweight persons without diabetes, some on blood glucose in some patients with type 2 diabetes, and reduces blood pressure in both hypertension and nonhypertension persons. Therefore, elementary schools need to make it possible for students to learn about healthy behaviours that they can maintain until adulthood and beyond. Adults that were obese while children have an increased risk for morbidity and mortality independent of their current adult weight (Doak, Vissche, Render & Sidell, 2006).

Not only should the schools, but also home environments give youth opportunities to reinforce positive eating patterns and help children to develop the skills they will need to make good food choices (Garcia-Lascurain et al., 2006).

Programs aimed to prevent obesity in at-risk children may include modification of environmental cues to guide children toward a positive energy balance, changing parental eating habits and providing healthy models for children to observe and follow. Part of that effort is teaching parents new skills that can reduce their use of food as a reward (Epstein et al., 2001).
Effective overweight prevention programs targeted to youth are considered the first step in preventing obesity. In addition, preventing obesity early on could reduce the onset of obesity in adulthood and the prevention or delay of the onset of chronic health issues, such as cardiovascular disease or diabetes (Doak, Vissche, Render & Sidell 2006).

Parents serve as health-related role models for their children. A major dilemma for educators is how to get parents involved in nutrition education programs. Health education interventions in which families can change attitudes and habits are likely to promote longer lasting health behaviours (Perry et al., 1988).

In a study of US children that examined prevalence of overweight in children ages 6 to 11 years and adolescents ages 12 to 17 years, significant ethnic disparities and different age-related and socioeconomic patterns of overweight were observed (Haas, Lee & Kaplan, 2003). As the prevalence of childhood overweight has continued to increase severely in the United States in recent years (Strauss & Pollack, 2001 and Ogden, Flegal, Carroll & Johnson, 2002), the prevalence of overweight among Hispanic children and African American has increased even more when the rates are compared with non-Hispanic whites (Strauss & Pollack, 2001). Recent data from the National Longitudinal Survey of Youth representative sample of US children aged 4 to 12 years reported that within a 12-year period, the prevalence of overweight rose to 21.5% among African-Americans, 21.8% among Hispanics, but just 12.3% among non-Hispanic whites. In a recent study by the Centers for Disease Control and Prevention (CDC), almost 14% of children and 12% of adolescents were deemed to be overweight (Strauss & Pollack, 2001).
In childhood, Hispanics and African-Americans were more likely to be overweight than were non-Hispanic Whites. Yet, in adolescence Hispanics and Asian/Pacific Islanders had higher rates of overweight than Whites (Haas, Lee & Kaplan, 2003). Haas and colleagues (2003) also found disparities in the prevalence of overweight based on socioeconomic status; in particular, children of parents with fewer years of education or lower household incomes were more likely to be overweight. Further, lack of health insurance during adolescence was found to be positively associated with a greater prevalence of overweight. In addition, adolescent with public health insurance were more likely to be overweight than their counterparts with private insurance.

Researchers reported that the reasons for ethnic variation in the rates of overweight seem to suggest a direct association to lifestyle, acculturation, and cultural beliefs and practices. Gordon-Larsen et al., (2003) investigated within-ethnicity generation differences in overweight among three important Hispanic populations (Mexicans, Puerto Ricans, and Cubans). They reported that there was likely to be a substantial interplay between acculturation, structural, and proximate determinants in the development of overweight in these groups. Immigrant adolescents were likely to be influenced by the current “obesogenic” environment found in the US, including sedentary lifestyles, large portion sizes, heavy advertisements for “high fat foods”, energy-dense foods, and the mass media. Lack of knowledge about nutrition and physical activity among parents with low educational attainment seemed to also influence the quality of their children's diet and their activity patterns.
Published literature search was conducted in the English Language through PubMed Medline and CAB Direct database from 1988 to the current date to collect the materials for this study. The following search themes were used, including “childhood obesity”, “nutrition and physical activity programs”, “parental involvement”, and “parental participation”. Abstracts of the studies that were found were closely examined for the following inclusion criteria: participants were students aged 7 to 12 years old, the studies must include parental participation, and the intervention had to target nutrition, physical activity or both.

A final sample of the studies, length of the intervention, type of intervention, type of study design, study duration, positive association, and statistically significant results were identified.

**Duration**

The studies on intervention program ranged from 5 weeks in length to as long as 6 continuous years (3 years for developing and testing the materials and 3 years for the intervention). One intervention program was less than 12 weeks: The Adventures of Hearty Heart, the Friends Program and Home Team Program intervention was done during 5 weeks (Perry et al. 1988). A total of 9 studies were found that ranged from 12 weeks to 1 year in length: the Fun, Food, and Fitness Project (FFFP) was conducted over 12 weeks (Baranowski et al., 2003), the Genetic Epidemiology of the Metabolic (GEM) study intervention was implemented during 12 weeks (Story et al., 2003), the Sandy Lake Diabetes Project (SDP) intervention was conducted during 12 weeks (Saksvig et al.,
2005), the Nutrition Education for New Americas (NENA) project was conducted during Spring, (Garcia- Lascurain et al., 2006) the Parents, Advisors and Children Together (PACT) program was implemented during 10 months (Heimendinger et al., 2007). The San Diego Health Program was conducted over 5 months from October, 1984 to February 1985 (Patterson et al, 1988 and Sallis et al., 1988). The Family Health Project was conducted for 1 year (Nader et al., 1992) and finally an Intensive intervention for weight loss management was conducted for 12 weeks (Johnston et al., 2007).

Four intervention studies examined long-term intervention programs that were more than one year of duration. The Child and Adolescent Trial for Cardiovascular Health (CATCH) program was implemented during 3 consecutive years (Luepker et al., 1998), the Dance for Health program was conducted for one year, then reviewed and modified and implemented again for other year. (Flores, 1995) The Stop-Light Diet program was conducted during one ½ year (Levine et al., 2001), the PATHWAYS project was implemented for 3 consecutive years (Caballero et al., 2007) and the Scottish Childhood Overweight Treatment Trial (SCOTT) was implemented for 26 months.

Summary of the Review Results

Details of the theoretical framework of each study, its study design, and the type of intervention described in the 10 articles included in this review are synthesized in Table 1.
Table 1.1: Details of the intervention conducted the study designs and the theory behind each study.

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<td>Social Learning Theory. Pretest-posttest factorial design involving 32 schools in four urban schools districts in Minnesota and North Dakota</td>
<td><strong>Hearty Heart Program:</strong> 15 sessions in 5 weeks. Emphasis in food differentiation, modeling healthy habits by slide-tape cartoon characters, food selection, preparations kills and goal setting with direct reinforcement. <strong>Home Team Program:</strong> 5 weeks correspondence course (Target audience: 3rd graders and parental involvement). Family game. 2-3hs activities concerning to eating pattern changes. Goal: change particular eating habits by introducing fruits and vegetables, complex carbohydrates, low-fat dairy and lean meats on their diets. The use of participation points after completing activities parents and children together. University personnel act as a Home Team coaches and visit classroom weekly to collect scorecards, record scores and answer questions. <strong>Reward:</strong> Trip for 4 to Disneyworld</td>
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<td>Luepker, R.V., Perry, C.L., Osganian, V., Nader, P.R., Parcel, G.S., Stone, E.J., &amp; Webber, L.S. (1998) “The child and adolescent trial for cardiovascular health (CATCH)”</td>
<td>Social Learning Theory. RCT. Randomized controlled trial.</td>
<td><strong>Implementation:</strong> over 3 years through Grade 3 to the end of Grade 5 for the classroom and home curricula by classroom teachers. For physical activity through Grade 4th and 5th and for cigarette smoking 5th Grade only. <strong>Eat Smart:</strong> Goal: provide children with tasty meals lower in fat (10% energy) and Na. (600-1000 mg/serving), while maintain in levels of recommended levels of essential nutrients and child participations. Food service personnel participated in 1-day training session. Monthly follow-up visits to help with planning and support. <strong>CATCH PE:</strong> physical education intervention to increase the amount of moderate physical activities levels (MPAL) to vigorous physical activity levels (VPAL). Goal to increase VPAL 40%. Physical Education Specialist and teachers had 1 to 1.5 days of CATCH training each school year. <strong>Classroom curricula:</strong> Involved Adventures of Hearty Heart and Friends (15 lessons over 5 weeks), Go for Health-4 (24 lessons over 12 weeks), and Go for Health-5 (16 lessons over 8 weeks) for the 3rd to 5th grades, respectively. Each lesson was 30-40 minutes long. The curricula targeted psychosocial factors and involved skills development focus on eating behaviors and physical activity patterns. <strong>Family program:</strong> involved activity packets that complemented the classroom curricula. Required adult participants to complete the 19 activity packets over the course of 3 school years.</td>
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<td>Caballero, B., Clay, T., Davis, S.M., Ethelbah, B., Rock, B.H., Lohman, T., Norman J., Story, M., Stone, E.J., Stephenson, L., &amp; Stevens, J. (2003)</td>
<td>Integrated the Social Learning constructs with American Indian traditions RCT. Randomized controlled trial for American Indian school-children</td>
<td><strong>Classroom curriculum:</strong> target to 3rd, 4th, and 5th grades. Goal: to promote healthful eating behaviors and increase physical activity. Two 45- minute lessons were delivered by teacher each week for 12 weeks during the 3rd and 4th grades. This component decreased during 5th grade to allow follow-up measurements during the final two months of the school year. <strong>Food Service:</strong> Goals were to reduce percentage of energy from fat to ( \leq 30% ) and introduce dietary practices aimed at increasing the use of lower-fat foods and fruits and vegetables. <strong>Physical Education:</strong> Increase energy expenditure by implementing a minimum of three, 30- minute sessions per week of Moderate to Vigorous Physical Activity Levels (MTVPA). Based on the SPARKS (Sports, Play and Active Recreation for Kids) program with the inclusion of American Indian games. Incorporation of exercise breaks of 2-10 minutes to increase energy expenditure and promote physical activity in classroom. <strong>Family:</strong> The goals were to keep the families informed and involved in the program. Extend positive health behaviors learned at school to family members by promoting involvement of family and children in school-based program activities and create a supportive environment for children to adopt positive health practices. Family action packs (take-home materials) related to the Pathways intervention, including snacks packs with samples of low-fat foods and tips for preparing healthful snacks at home. Family events at school included: Cooking demonstrations, and activities for healthier lifestyle with direct involvement of children.</td>
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<td>Story, M., Sherwood, N.E., Himes, J.H., Davis, M., Jacobs, D.R., Cartwright, Y., Smyth, M., &amp; Rochon, J. (2003)</td>
<td>Based in Social Cognitive Theory. Two-arm parallel group RCT. Randomized Controlled Trial</td>
<td><strong>Girl friends for KEEPS:</strong> (Keys to Eating, Exercise, Playing and Sharing). 12-week afterschool program. <strong>Physical Activity intervention:</strong> Increase frequency of MTVPA activities, decrease time spent in sedentary activities and experience feelings of enjoyment, physical competence, and self-confidence in performing a range of physical activities. <strong>Dietary change intervention goals:</strong> Decrease consumption of high-fat foods; increase consumption of fruits and vegetables and decrease consumption of sweetened beverages; adopt healthy, weight-related eating practices (portion sizes awareness, eating only when hungry, etc...) <strong>Family component:</strong> Designed to reinforce and support healthy eating and physical activity</td>
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<td>Baranowski, T., Baranowski, J. C., Thompson, D.I., Nicklas, T., Zakeri, I.F., &amp; Rochon, R.(2003) “The Fun, Food, and Fitness Project (FFFP): The Baylor GEMS Pilot Study.”</td>
<td>Based on Social Cognitive Theory. RCT. Randomized Clinical Trial that included a comparison group</td>
<td>Activities Procedures: Encourage girls in the consumption of fruits, 100% juice, fruit and vegetables (FJV). Suggestions and incentives for eating more FJV snacks and simple dishes. “A 5-Star lunch” campaign was initiated to educated children and parents on what foods and amounts were best for healthier camp lunches and snacks. Increase the consumption of water. Increase of Physical Activity: Girls’ buddy system, involve the parents by training the girls to ask their parents to participate in PA after camp or in the evening, increasing girls’ PA exposure, a pedometer was provided. Internet Program: Separate programs were used by control girls and control parents, treatment girls and treatment parents. Control girls logged once per month, and information provided links with other general health and homework websites. Control parents were offered access to the girls’ Website with information on general health issues interesting to parents of 8-year old girls. Treatment program for girls and parents Websites: Do a fun PA at home, choose FJV for snack increase FJV availability and accessibility, do PA in the evening with parents, drink water vs. soft drinks, do PA after camp, eat FJV after school and maintain “5 a day”.</td>
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<td>Saskvig, B.I., Gittelsohn, J., Harris, S.B., Hanley, A.J.G., Valente, T.W., &amp; Zinman, B.(2005) “The Sandy Lake school-based diabetes prevention program” (SLHDP)</td>
<td>Ecological and social cognitive theory. Pre-test/post-test, single-sample design conducted during the 1998-1999 school year.</td>
<td>Curriculum component: Focused on knowledge and skills development related to healthy eating, physical activity (PA) and diabetes education. Based on CATCH and the Kahnawake Schools Diabetes Prevention curriculum. Cultural adaptations were made. Family component: Informed parents and family members about healthy eating and physical activity messages their children were learning in school. Strategies: weekly radio show (encouraged to turn off TV and taught how to prepare healthy lunches and snacks for their children), information booths during parent-teacher nights and letters sent home with students. Peer component: Provide opportunities for peers to act as role models. Video cooking club with the preparation for healthy snacks by local children; the Diabetes Kids radio show aired 3 times on a weekly youth radio program. Environment component: Develop a school-wide policy prohibiting high-fat, and high-sugar snacks foods in the schools. School meals: A healthy school lunch program with low-cost, low-fat, and low-sugar lunch</td>
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<tr>
<td>Study Name</td>
<td>Theory and Methods</td>
<td>Outcome Measures</td>
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<td><strong>García-Lascurain, M.C., Kicklinghter, J.R., Honnaladadda, S.S., Atkerson Bouldof, E., &amp; Duchoson, D. (2006)</strong>&lt;br&gt;“The Nutrition Education for New Americans project” (NENA)</td>
<td>Social Cognitive theory and the compatibility construct for the Diffusion of Innovation Theory. Pilot study: Pretest/posttest</td>
<td><strong>Nutrition lessons based on:</strong> identification of the foods groups on MyPyramid, identification of foods within each group, identification of why they are healthier, servings per food group, recall of foods high in fat and sugar content, importance of breakfast and healthy breakfast foods. <strong>The nutrition-related knowledge questionnaire:</strong> 12 multiple-choice items based on the nutrition lessons. Pre-test/post-test (1 week after the intervention). Lessons were delivered in English (45 minutes). Handout on general nutrition concepts to take home to parents. The information was presented in the family’s native language and English. <strong>Opinion Survey:</strong> 4 open-ended questionnaires given to identify what they learned, what they liked or disliked or even found confusing about the lessons.</td>
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<td><strong>Heimendinger, J., Uyeki, T., Andhara, A., Marshall, J.A., Scarbro, S., Belansky, E., &amp; Lori, C. (2008)</strong>&lt;br&gt;“Parents, Advisors and Children Together (PACT)”</td>
<td>Not reported 88 families recruited from the integrated study from the cohort of 2nd grade students receiving the integrated curriculum</td>
<td><strong>School component</strong> 28-week nutrition and physical activity program integrated into 2nd grade. <strong>Family component:</strong> Home visits to complement the school component. Goal: Promotion and maintenance of healthy habits in diet and physical activity for families with 2nd grade children through a family visitation program to understand how families worked on changing their habits. <strong>Community component:</strong> Support the development of community resources for healthy activity and nutrition.</td>
</tr>
<tr>
<td>Hughes, A.R., Stewart, L., Capple, J., McColl, J.H., Donaldson, M.D.C., Kelnar, C.J.H., Zabihollah, M., Ahmed, F., &amp; Reilly, J.J. (2008)</td>
<td>“Scottish Childhood Overweight Treatment Trial” (SCOTT) using an adaptation of the “Stoplight Diet for Children”</td>
<td>Program consisted of 8 appointments (7 outpatients and 1 home visit) during 26 weeks. Family-centered approach was used. Behavioral techniques were used: Exploring motivations to make changes, exploring pros and cons about change, identifying barriers to change, goal settings, rewards, self-monitoring, social support, and preventing relapse. Strategies were directed to the children, although parents and dietitian helped them to understand and engage in the techniques. An adaptation of the Stoplight diet for children was used.</td>
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</table>
Specific information regarding study participants, results and conclusions is presented in Table 2.
<table>
<thead>
<tr>
<th>Author and Program</th>
<th>Participants</th>
<th>Results</th>
<th>Conclusion and comments</th>
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<tbody>
<tr>
<td>Perry, C.L., Luepker, R.V., Murray, D.M., Kurth, C., Mullis, R., Crockett, S., &amp; Jacobs Jr., D.R. (1988)</td>
<td>2250 3rd Grade Classroom (8 years old) in 31 urban schools in Minnesota and North Dakota and their parents</td>
<td>Differences emerged among treatment groups with the Hearty Heart and HH/HT conditions been equivalent on all knowledge scores and label reading, but having higher scores than HT for 4 of the knowledge scores and label reading. For behavior, the HH/HT was equivalent to Home Team along and was higher than HH. Intake for fat nutrients was lower for children in the HT and complex carbohydrate intake was higher. Dietary changes associated with HT occurred independent of whether or not the students participated in the Hearty Heart school condition. 24-hr dietary recall. Families that participated in the HT/HH or HT had more “uncourageous food” than either the HT or C groups. There were group differences for cheese, butter/margarine, frozen desert, fruit, and bread scores in favor of Home Team homes. Only for shredded wheat cereal did homes in the Hearty Hart intervention have more favorable scores than HT.</td>
<td>Parent involvement enhanced outcomes of eating patterns interventions. Self-reported behaviors, 24hr-dietary recall for fat and complex carbohydrates and food shelf inventory were positive for children and homes in the Home Team. Students in the Hearty Heart gained more knowledge and skills than those in the Home Team. However these did not necessary lead to a greater behavior change at least in the short term. Suggest that parental involvement might be necessary for dietary change in children’ school-based programs are efficient and effective in providing the necessities for informed foundation decision making.</td>
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<td>Luepker, R.V., Perry, C.L., Osganian, V., Nader, P.R., Parcel, G.S., Stone, E.J., &amp; Webber, L.S. (1998)</td>
<td>96 public schools. 2 treatments groups: 1st group: A school-based program eat smart, and catch PE; 2nd group: A school-based program eat smart, and catch PE + family program. Control did not receive CATCH intervention</td>
<td>Response scores for dietary knowledge, dietary intervention, and self-reported food choice changes on the HBQ (Health Behavior Questionnaire) were significantly greater for the intervention schools at follow-up. School + family intervention group when compared with the school-only intervention group had greater positive changes only for dietary knowledge. The intensity of PA in CATCH intervention schools was increased significantly when compared with the control schools (p&lt;0.02). intervention students reported more daily vigorous levels of PA than controls (58.6 vs. 46.5 minutes)</td>
<td>CATCH at school level cafeterias in the intervention schools was able to significantly modify their lunch offerings to approach the national recommendation of 30% total fat energy and 10% saturated fat energy. Positive results from CATCH PE. 70% parental participation over the 3 years of the intervention. Nevertheless this participation was limited to working with their children on at least one of five- to-eight activity packets each year and</td>
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<tr>
<td>Study</td>
<td>Participants</td>
<td>Findings</td>
<td>Conclusion</td>
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<td>Levine, M.D., Ringham, R.M., Kalarchian, M.A., Wisniewski, L. &amp; Marcus, M.D. (2001)</td>
<td>Intervention schools lunches the percentage of energy intake from fat fell significantly more (from 38.7% to 31.9%) than the control. Children who completed the program lost a significant amount of weight ($p=0.01$). However, weight losses were not maintained during post-treatment and the follow-up period ($p=0.002$). They also reported significant improvements in depression ($p=0.01$), anxiety, ($p=0.001$). Children reported a similar but not statistical significant decrease in disorders eating attitudes between pre-treatment and follow-up ($p=0.07$).</td>
<td>Family-based behavioral treatment has a modest, short-term effect on the weight of children who participate. Because there was no relationship between decreasing depression or anxiety scores and weight loss, the beneficial effects of the program on children’s mood and anxiety levels did not appear to relate to a change in weight.</td>
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<td>Caballero, B., Clay, T., Davis, S.M., Ethelbah, B., Rock, B.H., Lohman, T., Norman J., Story, M., Stone, E., Stephenson, L., &amp; Stevens, J.(2003)</td>
<td>“PATHWAYS Study” 1704 children in 41 schools during 3 consecutive years (3rd to 5th grades) in Arizona, New Mexico, and South Dakota. The intervention resulted in no significant reduction in percentage body fat. However, a significant reduction in the percentage of energy received from fat was observed in the intervention schools (31.1% compared with 33.6% for the control). The self-reported physical activity levels were higher among intervention schools than control-school students at the end of the trial. Knowledge targeted to the 3rd, 4th, and 5th grade Pathways curricula increased significantly in children within the intervention group. Over the 9 family events throughout the 3 years of the intervention, 0.9 adult per child attended</td>
<td>The Pathways study showed that significant reductions in the fat content of school menus and in the dietary fat intake of children can be achieved by training and support of food staff personnel; showed also positive but no statistically significant difference in trends in the level of physical activity during the school time. The process evaluation data indicated that a large majority of those who attends the family events enjoyed the activities and learned about diet, physical activity and health.</td>
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<td>Story, M., Sherwood, N.E., Himes, J.H., Davis, M., Jacobs, D.R., Cartwright, Y., Smyth, M., &amp; Rochon, J. (2003)</td>
<td>“The Genetic” 54 African American girls 8 to 10 years old and their parents/caregivers. Physical activity measured demonstrated greater levels in the intervention groups. These groups also had lower caloric intake, lower percent of calories derived from fat, and more servings of water/day compared to the control group, they reported also significantly higher scores on the healthy choice behavioral intentions ($p=0.001$), diet.</td>
<td>Pilot study had relatively short intervention period of 12 weeks and included 54 girls; lacked sufficient power to detect statistically significant differences. Therefore, no-between group differences were found for BMI and only a few</td>
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## Epidemiology of the Metabolic Syndrome (GEMS study)

Knowledge (\(p=0.001\)) and preference for PA (\(p=0.04\)) at follow-up.

At 12 weeks’ follow-up parents of girls in the treatment groups reported significantly less availability of higher-fat foods (\(p=0.001\)), more low fat practices (\(p=0.009\)), and lower energy intake from fat in their own diets (\(p=0.03\)) than controls groups.

Girls in the intervention group had higher scores on the healthy choice behavioral intention, diet knowledge, and on preference for physical activity.

At 12-weeks' follow-up, parents of the intervention group reported less availability of higher fat foods (\(P=.001\)), more low-fat food practices (\(P=.009\)), and lower energy intake from fat (\(P=.03\)) in contrast to the comparison group.

Significant differences were observed for other variables. Parental participation and involvement is critical in childhood obesity prevention programs.


**“The Fun, Food, and Fitness Project (FFFP): The Baylor GEMS Pilot Study.”**

35 girls and their parents/caregivers were assigned either to treatment (\(N=19\)) or control (\(N=16\))

BMI at the end of the summer camp did not vary between the groups. When a second analysis was done, there was a trend in girls toward lower BMI for the treatment group compared with the control (\(x=28.6\text{kg/m}^2\) vs. \(x=29.3\text{kg/m}^2\)). At the end of the intervention (summer camp + Internet) diet differences were hypothesized directions; lower total calories (-231 kcal) and percent of calories from fat, greater consumption of water and FVJ, and lesser consumption of sweetened beverages.

Physical activity measures demonstrated constantly greater activity levels in the intervention compared to the control group.

There was a trend toward lower BMI among the heavier girls in the treatment group compared with controls at the end of the intervention. Suggested that a summer camp is a useful tool for intervening in diet and physical activity.

The difference between groups of -231 kcal per day was considerable. 20% reduction in servings of sweetened beverages and 40% increase in servings of water.


122 students in 3rd, 4th, and 5th grade and ages 7 to 14

The percentage of energy from total fat was reduced at follow-up with a decrease for boys (34% vs. 31%; \(P<0.05\)). Knowledge about food both low and high in

The program was significantly associated with increased knowledge, dietary self-efficacy, and dietary improvements.
<table>
<thead>
<tr>
<th>Study</th>
<th>Participants</th>
<th>Findings</th>
<th>Summary</th>
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<tbody>
<tr>
<td>“The Sandy Lake school-based diabetes prevention program” (SLHDP)</td>
<td>Dietary fat increased for girls (5.5 vs. 7.0 (P&lt;0.001)) and boys (5.0 vs. 6.7; (P&lt;0.001)). The curriculum knowledge scale increased for girls (2.8 vs. 4.4; (P&lt;0.001)) and for boys (2.9 vs. 4.6; (P&lt;0.001)) for students who were obese at baseline (3.4 vs. 4.6; (P&lt;0.001)) and for those who were not obese (2.6 vs. 4.5; (P&lt;0.001)). Most of the students recalled seeing the main curriculum images (94%); 43% recalled the concepts promoted in the lessons for making healthy food choices and being physically active. Exposure to intervention was significantly and positively associated with being in the highest category for dietary fat knowledge, having a high score on the curriculum knowledge scale, and having a higher score for dietary self-effect at follow-up.</td>
<td>An analysis of the baseline and follow-up parents’ purchases of healthy foods shows a significant increase in the mean purchase of foods lower in sugar and fat, and high in fiber. These findings suggest that the program positively affected the home environment in addition to the school environment.</td>
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<td>Garcia-Lascurain, M.C., Kicklighter, J.R., Honnaladadda, S.S., Atkerson Bouldof, E., &amp; Duchoson, D. (2006)</td>
<td>15 English- as- a- Second Language Students (ESL) in grades 3 through 5. Scores for Objectives 1 through 4 (ability to identify all the food groups in the FGP, ability to identify foods for each group, ability to state why each food group is important for health, and the ability to identify servings per day for each food group) showed the greatest improvement. Post-test scores for Objective 1 increased 100% for correct response rate. For the Opinion survey, dominant themes that emerged were: Food Guide Pyramid lessons, learning about healthy food, naming foods, and learning about portion sizes.</td>
<td>Results from the knowledge questionnaire showed that the increase in students’ overall mean knowledge scores before and after the program was not significantly different. Cultural differences were not accounted for in this pilot. Results of the study indicate that the FGP may be a useful tool that is easily identified and understood by ESL students, thus making it comprehensible for immigrant students.</td>
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<td>Heimendinger, J., Uyeki, T., Andhara, A., Marshall, J.A., Scarbro, S., Belansky, E., &amp; Lori, C. (2008)</td>
<td>27 families that had at least 1 PACT1 home visit. Primary caregiver of the family with the 2nd grade student. The level of engagement of the family was positively associated with the time spent in a coaching environment in nutrition and physical activity visits. The correlation between average engagement and average achievement outcome was 0.34 ((P=.13)). There was a statistically significant positive correlation of 0.51, ((P=.02)) between outcome and engagement for 21</td>
<td>There was a positive correlation for the level of family engagement, time spent in coaching and achievement of coaching outcomes when the data was pooled across all stages of the program.</td>
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<td>Hughes, A.R., Stewart, L., Capple, J., McColl, J.H., Donaldson, M.D.C., Kelmar, C.J.H., Zabihollah, M., Ahmed, F., &amp; Reilly, J.J. (2008) “Scottish Childhood Overweight Treatment Trial” (SCOTT), using an adaptation of the “Stoplight Diet for Children”</td>
<td>134 overweight children were randomly assigned to a best-practice behavioral program (intervention) or to standard care (comparison)</td>
<td>No significant difference for changing BMI z scores and weight from baseline up to 6 and 12 months of follow-up. No significant difference for changing waist-circumference z scores from baseline up to 6 and 12 months. Significant between-group differences for change in total activity and percentage of time dedicated to sedentary behavior and light-intensity activity from baseline to 6 months in favor of the treatment group.</td>
<td>The significant benefits in PA and sedentary behavior in favor of the best-practice behaviors may reflect differences in the treatment: The intervention focused on diet, physical activity and sedentary behaviors while the comparison (standard care) only had a minimal emphasis on PA and did not target sedentary behavior. The intervention had a positive effect on weight for those who complied with the program. Both treatments had a small, but significant effect on BMI z scores over the 12 months.</td>
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Table 3 provides detailed information regarding the different programs conducted with the Hispanic population.
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<tr>
<th>Authors and Program</th>
<th>Theory/Study design</th>
<th>Intervention Program</th>
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<tr>
<td><strong>Flores, R. (1995)</strong>&lt;br&gt;“Dance for Health”</td>
<td>Not Reported&lt;br&gt;Small-scale Controlled Trial</td>
<td>1990-91 was the first year of intervention. In 1992-93 the curriculum was revised for 7th grade students and culturally sensitive health curriculum. <strong>Dance for Health</strong>: 12-week intervention program. <strong>Aerobic Dance</strong>: The dance orientated physical activity curriculum replaced the intervention group’s regular physical education curriculum. The class was taught 3 times a week for 50 min. (10 min warm-up and 40 min moderate to high-intensity aerobic dancing) <strong>Health Education</strong>: Students met twice a week for this program. The curriculum that was culturally and appropriate-sensitive covered 25 lessons, 6 on Nutrition, 5 on exercise, 3 on obesity and unhealthy weight regulation practices, 5 on smoking prevention, 2 on substance abuse, 2 on stress management, and 2 on peer pressure</td>
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<td><strong>Patterson, T.L., Rupp, J.W., Sallis, J.F., Atkins, C.J., &amp; Nader, P.H. (1988)</strong>&lt;br&gt;“San Diego Family Health Project”</td>
<td>Not reported&lt;br&gt;Case-control study</td>
<td><strong>Nutritional Intake</strong>: Collected using 24-dietary recall interviews, a 3-day Food Diary for two weekdays and one weekend day, and a 36-item Food Frequency questionnaire, modifying the Gladstone Foundation in San Francisco to make this study more culturally sensitive. <strong>Causal Urine samples</strong>: were collected from all subjects in the morning to measure the ratio of sodium/potassium</td>
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<td><strong>Sallis, JF, Patterson, T.L., Buono, M.J., Atkins, C.J. &amp; Nader, P.H. (1998)</strong>&lt;br&gt;“San Diego Family Health Project”</td>
<td>Not reported&lt;br&gt;Case control study</td>
<td><strong>Assessment of Physical Activity</strong>: 7-day Physical Activity Recall (PAR). From an interview-administered as a 1-week recall with modifications to allow separate scorings of work and leisure activity. Kilocalories per kilogram of body weight per day, (KKD) were calculated. Time spent in hard and very hard physical activities during leisure (HARD LEISURE) was also analyzed</td>
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<td><strong>Nader P.R., Sallis, J.F., Abramson, I.S., Broyles, S., Patterson, T.L., Senn, K., Rupp, J.W., &amp; Nelson, J.A. (2003)</strong>&lt;br&gt;“Family Health Project”</td>
<td>Social Learning Theory and principles of Self-management.&lt;br&gt;Simple randomized hierarchical design with 4 Combinations: Anglo-American intervention, Anglo-American control, Mexican-American intervention, and</td>
<td>Families were measured at the baseline, 3 months, 12 months, 24 months, 36 months, and 48 months **One-year intervention structured into 12 weeks of intensive intervention. Followed by 6 maintenance sessions over a 9-month period. 90 min of training in self-monitoring, realistic goal sessions, problem-solving, self-rewarding goal achievement, and family and group members support. Conducted in Spanish and was culturally adapted to Mexican-American</td>
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<tr>
<td>Study Authors</td>
<td>Intervention</td>
<td>Theory</td>
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<td>1st Session: Introductory and included training in self-monitoring. Sessions 2-4: physical activity, Sessions 5-7: sodium intake; Sessions 8-10: saturated and total fat intake; Session 11: review and integration of all the areas. Session 12: heart-healthy potluck dinner. Maintenance sessions covered: breaking habit chains, making healthy choices in restaurants, grocery shopping, friend and family peer pressure, planned and unplanned breaks in exercise and dietary routines.</td>
<td>2 conditions: Self-Help (SH) a weight reduction in at-risk group: 12-week –parent-guided manual intended to promote child weight loss followed long-term maintenance of changes: improving diet and level of physical fitness of children. II: An intensive behavioral weight management program: instructor/trainer-led intervention for 12-weekly sessions followed by 12 weeks of biweekly sessions. 1 day/week nutrition instruction, and physical activity training (4 days per week). Parents attended monthly meetings to learn them how to adapt family meals and activities to facilitate healthy changes.</td>
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</table>
Information regarding the theoretical framework of each study, its results and conclusions for the programs conducted with the Hispanic population are summarized in Table 4.
<table>
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<tr>
<th>Author and Program</th>
<th>Participants</th>
<th>Results</th>
<th>Conclusion and comments</th>
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<tr>
<td><strong>Flores, R. (1995)</strong>&lt;br&gt;“Dance for Health”</td>
<td>110 boys and girls age 10-13 years. 43 students were randomized to Dance for Health and 38 to their usual physical education class.</td>
<td>Dance for Health for girls was associated with a significant decrease in BMI and heart rate. It was associated also with positive changes in the timed mile run and with attitudes about physical activity. For boys, the program also favored the intervention group, but the differences were not significant.</td>
<td>Has proved to be an effective program to improve fitness and reduce weight in minority adolescents. The program appears to be more effective with girls than boys. Might prove to be an effective way to increase physical activity in Hispanic and African-American girls and with some revision for boys as well.</td>
</tr>
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<td><strong>Patterson, T.L., Rupp, J.W., Sallis, J.F., Atkins, C.J., &amp; Nader, P.H. (1988)</strong>&lt;br&gt;“San Diego Family Health Project”</td>
<td>206 families: 95 Anglo and 111 Mexican-American (5th and 6th grade children)</td>
<td>Anglo Families: Correlation of food frequency scores between all pairs except for fathers with older children was significant. The strongest relationship for food frequencies were observed between fathers and mothers, fathers and younger children, and older siblings. The total number of kcal significantly correlated between mothers and young children and between siblings. Mexican American Families: Mothers and fathers showed a significant relationship in their food frequency index, as did both mothers and fathers with their older children. In addition, mothers and younger children’s food frequency scores were significantly correlated. For total kcal, there were significant correlations between spouses, between mothers and younger children, and between siblings. Spouses’ fat intakes for Mexican Americans were significantly correlated except for the 3-day fat score. The 3-day sodium score was significantly aggregated in all family pairs except for father-younger child (p=0.07). The 24-hour sodium measure was significantly correlated for father-younger child, mother-younger child, and siblings.</td>
<td>Data indicated that dietary behaviors related to cardiovascular diseases are aggregated within families. Anglo samples had the most consistently high intrafamily correlation for the food frequency measure, indicating that these families tended to eat and avoid the same types of foods. However, there was a substantial aggregation of dietary sodium intake and less for fat measures. In the Mexican-American families, there were no apparent differences in the level of aggregation of dietary fat vs. sodium. The types of foods eaten were significantly correlated for 4 out of 6 pairs in these families. The familial aggregation of urinary Na/K ratio was higher in the Mexican-American family than in the Anglo sample. Health-related dietary behaviors aggregated</td>
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The urinary Na/Ka ratio was significantly correlated for both mother-child pairs and for the siblings’ pair.

Within families provided additional justification for health promotion programs that target the family as the unit of intervention.

*Family influences may weaken as children enter the teen years, so intervention during the elementary years or even earlier may be the best to obtain the maximum benefits from a family-based program.*

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<td>206 families. 95 Anglo families (58 fathers, 87 mothers, and 104 children) and 102 Mexican-American families (42 fathers, 102 mothers and 143 children)</td>
<td>Mean KKD score for adults was similar to those reported for representative samples from California, suggesting that the current sample had average activity levels. For the Mexican-Americans, the intrafamiliar correlations were generally higher. For KKD, several correlations were significantly correlated and substantial. Energy expenditure was significantly correlated for fathers and older children, for mothers and both younger children approached significance, but the correlation for spouse pairs was not significant. Family aggregation for vigorous leisure activity was less pronounced. Adjustment for BMI produced no important effects. For Anglos’ overall energy expenditure, KKD was significantly correlated only for siblings and mother-older child pairs. For hard leisure activity, mother activity was significantly correlated with scores for both children (the correlation was higher for older children). Adjustments for BMI were inconsequential.</td>
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| **Nader P.R., Sallis, J.F., Abramson, I.S., Broyles, S.** | **206 families were recruited** | All experimental groups reduced their mean systolic blood | A health promotion program for healthy |
“Family Health Project” | (5th and 6th graders) | Pressure from 2 to 5 mm Hg over the 4 years of the study. Control in both ethnic groups also tended to reduce their blood pressure although not as much. For children, mean systolic blood pressures tended to increase with age and growth over the 4 years of the study. Serum Lipids: Significant beneficial effects caused by the intervention and reflected in the total cholesterol and LDL cholesterol were noted for Anglo adult males. BMI: Although not a specific target of the intervention, no significant effects were noted for BMI in any subgroup. Self-reported behaviors: intervention effects on the food frequency index at 3 months were found for all subgroups except for Mexican-American boys. Significant differences were found at 48 months for Anglo women and Mexican-American girls. Total fat assessed by the 24hs dietary recall revealed significant intervention effects at 3 months for Anglo men and women. The difference remained at 24-months. At 48-months, differences increased and were significant for Anglo men and women. A difference was found for Mexican-American boys. Dietary fat: assessed by the 3-day record showed significant intervention effects for Anglo men and women at 3, 24, and 48 month measures. Differences were found also for boys and girls at 3 months, and, they persisted at 24 to 48 months for girls. 24hs sodium was only significant for Anglo males at 3 months. It was significant for all adult subgroups at 3 months, and the differences persisted at 24 and 48 months. | families is feasible and will produce meaningful changes. The most convincing evidence of consistent intervention effects was found in blood pressure results and dietary behaviors changes. There was substantial evidence in the current study that the 12-month intervention produced dietary changes that were maintained for a full year after the intervention. The evidence for long-term diet changes among children was less consistent. However, of the 4 significant reported diet differences at 48 months, 2 were found in Mexican American children, and 3 were found among girls. Change of PA habits was a primary goal of the intervention, but it was concluded that the intervention was less effective in changing PA activity and fitness that in changing dietary behaviors. |
There were no intervention effects on KKD for adults; the only significant differences were for Anglo boys at 48 months.

There were significant intervention effects for knowledge of diet and PA behavior change skills for adult subgroups except for Anglo women. These differences persisted for Mexican-American women at 48-months’ measurement for Mexican-American men and women. For children, there were significant differences for all subgroups except for Mexican American boys.

### Primary outcomes:
Children in the II significantly reduced their z BMI when compared with children in the SH group \((p<0.01; p<0.01)\) with significant differences in z BMI change at both 3 and 6 months.

### Secondary outcomes:
Children in the II significantly reduced their total cholesterol \((p=0.027)\) compared with the children in the SH condition at 6 months.

A total of 60 overweight students were randomly assigned after baseline measurements were taken with 40 students in treatment and 20 students in control. (Ages ranged from 10 to 14 years)

This behavioral intervention resulted in significant decreases in zBMI at 3 and 6 months when compared with counterparts in the SH control.

Providing consistent, frequent feedback strategies for gradually modifying diet and physical activity may be needed initially to model and reward children in their efforts to achieve healthy weight status.

Further research may evaluate additional strategies, including providing regular opportunities for practicing healthy living within naturalistic settings, such as schools.

Because there are limited data about the use of school-based programs for weight loss in Mexican-American children, the need to identify efficacious programs is critical.

Our intensive program demonstrated that weight loss is possible in Mexican-American
children who are at risk for developing adult obesity.
Discussion

Statistically significant differences were shown in knowledge scores for the Hearty Heart and the Hearty Heart/Home Team programs when compared to the Home Team program only (Perry et.al, 1988). The Children and Adolescent Trial for Cardiovascular Health (CATCH) report indicated that response scores for dietary knowledge are higher for the intervention group at both baseline and follow-up (Luepker et al., 1998). The Sandy Lake school-based diabetes prevention program reported that the program was associated with an increase in knowledge, dietary self-efficacy, and dietary improvements (Saksvig et al., 2005). The Fun Food and Fitness Project- Girls health Enrichment Multi-site Studies (FFFP-GEMS) Pilot Study reported that girls in the intervention group had higher scores on healthy choice behavioral intention, diet knowledge, and preference for physical activity (Baranowski et al., 2003). However, “the Nutrition Education for New Americans” project results for the knowledge questionnaire showed that even greatest improvements were seen in the ability of students to identify foods groups from the Food Guide Pyramid, in the capability to identify foods from each group and to state why each group was important for health, and finally the ability to identify servings per day for each food group. The increase in the mean knowledge score after and before the implementation of the program, however, was not significant (Garcia-Lascurain, 2006).

Overall parental involvement enhanced outcomes for the Hearty Heart and Friends Program & Home Team Program (Perry et.al, 1988), for The Stoplight Diet for Children (Levine et al., 2001). The Sandy Lake school-based diabetes prevention
program was shown to positively affect the home environment. (Saksvig et al., 2005)
There was also a positive association between family engagement and outcome achievement in the Parents, Advisors, and Children Together program (PACT). (Heimendinger et al., 2007)

Five of the ten studies, namely, The CATCH, The Genetic Epidemiology of the Metabolic, the PATHWAYS: a school-based, randomized controlled trial for the prevention of obesity in American Indian schoolchildren, Scottish Childhood Overweight Treatment Trial (SCOTT) and the –FFFP GEMS, were programs reporting that activity levels of physical activity in the intervention group increased in contrast to the comparison group. Luepker et al. (1998) reported for the CATCH study, vigorous physical activities was significantly higher in the intervention schools ($P=\lt 0.003$). Story et al. (2003) reported from the Genetic Epidemiology of the Metabolic Syndrome (GEMS) study that physical activity measurements was consistently higher in the intervention compared to the controls; however the differences were not significant. According to Caballero et al. (2007) self-reported physical activity levels were higher among intervention than control-school students in PATWAYS at the end of the trial. Hughes et al. (2008) reported that there was significant between-group differences for the change in total activity and percentage of time spent in sedentary behavior and light-intensity activity from baseline to 6 months in the SCOTT study in favor of the intervention group. Baranowski et al. (2003) reported that physical activity was higher although not significantly different, between treatment and controls groups.
None of the interventions reported an increase in physical activity knowledge. A positive change was, however, seen in the SCOTT program for BMI’s z scores; a small, but statistically significant, effect on BMI z scores was reported over the 12 months of the study (Hughes et al., 2008).

Four out of 10 studies reported having a positive effect on self-reported behavior on diet in favor of the treatment group. These were the Hearty Heart and Friends and Home-Team (Perry et al., 1988), the CATCH program (Luepker et al., 1998), the Stoplight Diet for Children (Levine et al., 2001), and the GEMS-FFFP Pilot Study (Baranowski et al., 2003).

In the case of studies conducted with Hispanics, 2 out of 5 studies showed a significant decrease in BMI scores, namely, the Dance for Health (Flores, 1995) and the “Intensive intervention for weight loss management” (Johnston et al., 2007).

In the case of the San Diego Family Health Project, the data showed that Mexican-American dietary behaviors that related cardiovascular diseases were aggregated within families. Physical activity (PA) habits were moderately aggregated within families. While family influences were important determinants of PA in children, there were many other forces operating on PA as well (Sallis et al., 1988).

“Dance for Health” has been an effective program to improve fitness and reduce weight in minority adolescents. However, the program appears to be more effective with girls than with boys (Flores, 1995).

“In the Family Health Project”, there was substantial evidence to conclude that the intervention produced dietary changes that were maintained for one year after the
intervention. However, the intervention was less effective in changing physical activity and fitness (Nader et al., 1992).

Recommendations

More studies need to be conducted to examine changes in BMI’s z scores and behaviors. Additional research needs to be conducted also with Hispanic families and children, particularly during the younger years (elementary school) to obtain the maximum benefits of a family-based program.

Research Questions

Based on the literature review this thesis will explore five different research questions and hypotheses regarding the relationship between Hispanic children and their families involved in a nutrition and physical activity educational program. These questions and the hypotheses are presented as follows:

1. Is the Jump into Food and Fitness an effective curriculum with elementary aged Hispanic children?

   Hypothesis: (H1) The Jump into Food and Fitness Curriculum will demonstrate it is an effective curriculum to use with elementary aged Hispanic children.

2. Are there significant differences in the knowledge of elementary age Hispanic children as a consequence of participating in a nutrition and physical activity program that includes the family?
Hypothesis: (H2) Family participation will result in a positive effect in children’s nutrition knowledge.

3. Are there significant changes in children’s self-reported behaviors after children and families participate in the Jump into Food and Fitness Program?

Hypothesis: (H3) Participating in the Jump into Food and Fitness Program will have for children a positive effect on self-reported behaviors in elementary aged Hispanic children.

4. Are there significant differences in attitudes toward nutrition and physical activity after participation in the Jump into Food and Fitness Program?

Hypothesis: (H4) Participating in the Jump into Food and Fitness Program will produce a positive effect on attitudes toward nutrition and physical activity.

5. Are there significant changes in believes, behaviors, knowledge and food safety held by the parents that participates in a nutrition and physical activity program?

Hypothesis (H5) Participating in a nutrition and physical activity program will demonstrate a positive change in parent’s believes, behaviors, knowledge and food safety.

Statement of Purpose

The aim of this particular pilot study is to determine the efficacy of the Jump into Food and Fitness Curriculum to positively change weight related attitudes, beliefs, behaviors and among Hispanic children and their parents.
References


CHAPTER TWO

THE IMPACT OF A NUTRITION AND PHYSICAL ACTIVITY PROGRAM ON HISPANIC YOUTH AND THEIR PARENTS

Abstract

Objective: To determine the effectiveness of a nutrition and physical activity program, “Jump into Food and Fitness,” on knowledge, attitudes and self-reported behaviors among Hispanic children when a parental component was added to the original curriculum.

Design: In this pilot study, a convenience sample of children participated in a week-long intervention that included nutrition and physical activity lessons. Parents of the children in this intervention group received a nutrition and physical activity skills-based program in Spanish that was developed based on the program’s “take-home newsletters.” Children in the comparison group received the same intervention, but their parents did not receive any intervention. Pre, post and post-delayed surveys were administered for both groups. Focus group interviews were conducted with parents in both groups to explore their general opinions about the program’s content and the take-home newsletters.

Setting: A three hour per day 5 day summer-day camp conducted in school, Recreation Center and Clemson Extension Offices settings in three rural counties in South Carolina

Participants: The intervention group consisted of 12 children and their parents (n=8). Thirteen children participated in the comparison group.

Results: There was a statistically significant difference in the comparison group between pre test and posttest (P=0.002) and posttest and post-delayed test (P=0.016) of the
children. There was a statistically significant difference in the treatment group between pretest and posttest \((P=0.017)\). No other difference was found in the treatment group. In follow-up focus groups, parents discussed the importance of receiving a skill-based program that is based on the traditional foods that they consume daily. They highlighted the importance of learning about portion sizes, macronutrients, and calories.

**Conclusions and Implications:** This study does not support the hypothesis of an additive effect of parent participation. However, the study is limited by sample size and program length. Our results suggest that the Jump into Food and Fitness program can be adapted and administrated with Hispanic children and families.

**KEY WORDS:** Hispanic, childhood, nutrition, physical activity, and family intervention.
Introduction

In 2006, 58 percent of U.S. children were White, non-Hispanic, 20 percent were Hispanic, 15 percent were Black, 4 percent were Asian; and 4 percent were from other races. The percentage of Hispanic children has increased more rapidly than any other racial or ethnic group, growing from 9 percent in 1980 to 20 percent in 2006. By 2020, it is projected that nearly 1 in 4 children in the United States will be of Hispanic origin (Forum on child and family statistics, 2007).

In 2003, the world Health Organization [WHO] stated that childhood obesity already is epidemic in some areas and is rising in others. An estimated 17.6 million children under the age of five are likely to be overweight worldwide. In addition, the prevalence of overweight in the United States for children aged 2–5 years has increased from 5.0 percent to 13.9 percent. For those aged 6–11 years, overweight has risen from 6.5 percent to 18.8 percent; and from 5.0 percent to 17.4 percent for those aged 12–19 years (US Department of Health and Human Services, 2007). According to Odgen et al., (2006) and Dalton et al., (2007) 37.2 percent of children ages 6 to 11 years and 34 percent of children ages 12 to 19 years in the United States are at risk for overweight, and ethnic minorities have the highest rates. Physical inactivity, overweight, and obesity are especially prevalent in Hispanic adults and children (Troiano et al., 1995; Flegal et al., 1998 and Heath & Coleman, 2002). Particulary, obesity prevalence rates among Hispanic children has been growing over the past 10 years (Odgen, Flegal, Carroll & Johnson, 2002 and Arredondo et al., 2006).
Childhood overweight is associated with social and psychological problems such as discrimination and poor self-esteem, particularly in Latina girls and adolescents (Strauss, 2000 and Robinson, 2001) and it also is associated with having significantly lower quality of life (Tyler, Johnston, Fullerton & Foreyt, 2007). Furthermore, children and adolescents who are overweight are more likely to become overweight or obese adults (Whitaker, Wright, Pepe, Seidel & Dietz, 1997; The US Department of Health and Human Services, 2001 and Menschik, Ahmed, Alexander & Blum, 2008). Overweight has been associated as well with a number of medical consequences: adverse blood lipid profile, altered glucose metabolism, and obstructive apnea, and with diseases with long-term effect such as augmenting the risk of hypertension, diabetes, gall bladder disease, cardiovascular disease, and osteoarthritis in adulthood (Whitaker, Wright, Pepe, Seidel & Dietz, 1997; Sharma and Stice, Shaw & Marti, 2006). Increasingly, childhood obesity is an important predictor of adult obesity; therefore, prevention of obesity in children and youth is essential (Whitaker, Wright, Pepe, Seidel & Dietz, 1997).

Parental participation and involvement is critical in childhood obesity prevention programs (Epstein, Valoski, Wing & McCurley, 1990 and Story et al., 2003). Furthermore, family participation in nutrition education programs may improve children’s health habits, attitudes, and knowledge in diet, nutrition, physical activity, and food safety (Perry et al., 1988; Luepker et al., 1998 and Heimendinger et al., 2007).

In 2001, the US Department of Health and Human Services stated that family members can share with their children, friends, and other community members their own knowledge, skills, and habits regarding a healthy diet and physical activity. Emphasis
should be placed on family and community opportunities for communication, education, and peer support surrounding the maintenance of healthy dietary choices and physical activity patterns.

Few research studies have been conducted with Hispanic youth and their parents; however, the ones that have included Hispanic families show a positive association between parental involvement and outcomes (Heath & Coleman, 2002; Heimendinger et al., and Ornelas, Perreira & Ayala, 2007).

One of the most relevant aspects of implementing nutrition and physical activity programs is that they not only need to be translated to Spanish language but also be culturally relevant. For instance, in El Paso, the CATCH curriculum was not implemented and CATCH Home Team materials were not sent home by many teachers because Spanish materials were not available. The EAT SMART manual needed to be translated as well, with culturally appropriate food items prepared with low-fat and low-sodium techniques for the Spanish-speaking cafeteria staff in many El Paso elementary schools (Heath & Coleman, 2002).

Methodology

Population

Prior to the implementation of the study approval was obtained from the Human Subject Protection committee of Clemson University. Participants in this project were Hispanic children aged 8–11 years old and their parents currently residing in Oconee, Anderson, Orangeburg, Lexington, Bamberg, and Calhoun Counties in South Carolina.
Formal contact was established with the Diversity/Interpretation Services Coordinator at Anderson Medical Center, a priest at Holy Trinity Catholic Church in Orangeburg County, a priest in St. Paul the Apostle Catholic Church in Seneca, and a Spanish teacher who works in the Orangeburg Health Department. They were provided with a detailed explanation about the program and with flyers to promote the program in the community. A working relationship with the 4-H Clemson Extension agents in Orangeburg and Anderson counties has been established. The researchers provided staff to work with the children and their parents at the same time. All participants’ parents received a monetary remuneration ($50 grocery store card) to help them cover their costs and time.

**Recruitment**

The researchers were able to make personal contact and recruit participants by word of mouth, through churches and other gathering places, personal invitations, and flyers. Even though the program was targeted to parents and children, one adult without children, a grandmother with a granddaughter, and an elder sister (17 years old) were accepted in the program.

**Sample**

Informal recruitment sessions were held in Spanish to explain the details about the project. The research staff explained the Jump into Food and Fitness Program and the purpose of the research study. For the recruitment process, the children had a parent or guardian sign a consent form allowing them to participate. Students and parents who met
the requirements were invited to participate. Even though the original group age for
children was designated at 8–11 years old, those aged 7, 12, and 13 years old were
accepted, as well as Hispanic parents who have children aged 7–13.

In total 8, parents and 24 children participated in the program. The Clemson
University Review Board approves all procedures and instruments for the protection of
human subjects. All parent/guardians completed and signed the CU-IRB approved
parental consent form (Appendix A) and all children completed an assent form
(Appendix B).

**Design**

This repeated measures pilot study utilized a pretest, posttest and post-delayed test
to determine the effectiveness of adding a parent education component to a nutrition and
physical activity program among Hispanic youth and their parents.

The 24 children participated in a week-long intervention that included nutrition
and physical activity lessons in English. The eight parents in this intervention group
received a nutrition and physical activity skills-based program in Spanish that was
developed by the researcher, based on the program’s take-home newsletters. Due to a
small sample size, parents from Orangeburg County and parents from Anderson County
form one experimental group. Parents and children participated simultaneously in
separate rooms or buildings. Children in the comparison group received the same
intervention, but their parents did not receive any intervention.
An open-ended and closed-questions survey was conducted for both groups at the beginning of the day to assess what they learned from each lesson from the previous day. Focus group interviews were conducted with parents in both groups to explore their general opinions about the program’s content and the take-home newsletters.

Participants, both parents and children participated in a three-hour summer day camp during one week in a school, Recreation Center, and Clemson Extension Offices in South Carolina.

**Educational Program**

“Jump into Food and Fitness” (JIFF), a curriculum developed by Michigan State University Extension (2003–2006) for children aged 8–11 years old with the intention to help them develop a healthier lifestyle that will improve their overall health, was implemented with the children in this pilot study. It is structured in eight different lessons. The units are: MyPyramid and the Kid’s Activity Pyramid, the Food Groups, Selecting Nutritious Meals and Health Snacks, Nutrition Levels, Food Safety, and Physical Activities. The researcher translated the take-home newsletter (Appendix E) to Spanish and children in the comparison group had to take home the newsletters.

The educational program used with the parents was developed in Spanish by the researcher, and was based on the JIFF’s take-home newsletters. The topics are: MyPyramid and the Kid’s Activity Pyramid, the Foods Groups, Portion Sizes, Physical Activity, Selecting Nutritious Meals and Snacks, Nutrition Levels, Food Safety, How Children Grow, and Developing New Cooking Skills while Preparing Recipes.
The program was conducted during an intensive summer camp 3 ½ hours a day during one week. Some modifications were made to the original JIFF program to make it culturally compatible.

**Instruments**

**Demographic questionnaire**

A close-ended demographic questionnaire was developed by the researchers in Spanish for the parents. The questions were related to gender, country of origin, time living in the United States, time living in South Carolina, educational level, employment status, income, number and ages of their children, and ages of their children participating in the program (Appendix D). During the completion of the JIFF survey, children were asked their age, grade, and gender.

**Jump into Food and Fitness Questionnaire**

The Jump into Food and Fitness survey that was used with the children contained twelve questions about nutrition and physical activity knowledge and eleven questions on self-reported behaviors, using a three-point ordered-response scale: 1=Hardly Ever, 2=Sometimes, and 3=Almost Always (Appendix C).

A pretest survey was administered for both groups at the beginning of the first day of the program; a posttest was administered the last day of the program; and a post-delayed survey was administered six to eight weeks after the program has ended for both groups.
Checking the Knowledge Questionnaire for children

A four item, open-ended questions were administered to the children at the beginning of the day to see what they learn from the lessons taught the day before of the program (Appendix C).

Parental Questionnaire

Close-ended questions were administered to the parents; it contained eight questions to assess their attitudes regarding MyPyramid, Physical Activity, and Health and Overweight; one question to assess their knowledge on Physical Activity and Fruit; and finally seven questions on self-reported behaviors (Appendix D).

At the beginning of the day, all participants were asked to respond to a brief survey containing open-ended questions to assess what they had learned the day before (Appendix D).

Two focus group interviews were conducted with parents in both counties to explore their general opinions about the program’s content and the take-home newsletters (Appendix E).

Implementation of the Program

The program was executed in the following manner. In Oconee, the summer camp was conducted in a school in the Walhalla district during the afternoon. Two researchers were implementing the JIFF curriculum with the children. This group served as the comparison group.
In Anderson County, while the researcher, in collaboration with a 4-H Clemson Extension agent, was implementing the program with children in the Recreation Center, two other researchers were working with the parents in the office that Clemson University Extension has in the area. Finally, in Orangeburg County, the program for both children and parents was conducted at the Clemson Extension offices. Two different rooms were used for children and parents. Data from these two groups served as the treatment group.

The children’s assent forms and the parental consent forms were signed on Monday. A pretest JIFF survey was administered before the program began. During this day, only one lesson was conducted with the children. From Tuesday through Thursday, two lessons were took place the same day. At the beginning of the day, an open-ended survey was administered to see what the children learned the day before. On Friday, the posttest JIFF survey was administered. The post-delay JIFF survey was administered six to eight weeks after the program had ended.

For the parents, the pretest survey was administered on Monday before the program began. At the beginning of the day, open-ended and close questions surveys were administered to see what they learned from the lesson taught the day before. On Friday, a posttest was administered and focus group interviews were conducted with parents in both groups to explore their general opinions about the program’s content and the take-home newsletters.

In Oconee County, the post-delay test was conducted in the school. Only three participants couldn’t come to the school and the researchers visited their homes. In
Anderson County, the researcher was visiting all the participants in one participant’s house. In Orangeburg County, the post-delay survey was conducted in the Catholic Church at the end of the Mass. Two participants weren’t present that day; therefore, the follow-up for one of them was done by phone. The other one parent, with two children, was back in Mexico. In this county, the posttest survey was conducted by phone because one of the researchers forgot to do it with the parents.

**Statistical Analysis**

Statistical analyses were performed using SPSS for Windows (Release 16.0 Chicago, IL.). Descriptive statistics were used to describe the sample. Non-parametrical statistical tests—a Mann-Whitney U test, Z-and P-values, Friedman Test, and the Post-hoc Wilcoxon Signed Rank Test—were used due to small sample size.

**Results**

1. **Quantitative analysis**

   Of the 24 children 70.8 percent were female, (76.9 percent within the comparison group and 63.6 percent within the treatment group) and 29.2 percent male (26.1 percent within the comparison group and 36.4 percent within the treatment group). The final children’s participation rate was 79.2 percent, and only 75 percent did the post-delayed test.

   Demographic information for the children is shown in Table 1. Females and males, and their respective ages for either the comparison or the treatment group, did not
differ regarding the demographics at baseline. In addition, knowledge score did not differ significantly at pretest for the entire sample.

Table 2.1: Children demographics.*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Comparison</th>
<th>Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade</td>
<td>2–6</td>
<td>2–8</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female (%)</td>
<td>76.9</td>
<td>63.6</td>
</tr>
<tr>
<td>Mean rank age</td>
<td>11.96</td>
<td>13.14</td>
</tr>
<tr>
<td>Mann Whitney U age</td>
<td>64.5</td>
<td></td>
</tr>
<tr>
<td>P-value</td>
<td>.679</td>
<td></td>
</tr>
<tr>
<td>Knowledge score</td>
<td>6.1 ± 2.4</td>
<td>8± 2.0</td>
</tr>
</tbody>
</table>

Note. * All difference between groups NS. N=24

Demographic information for the parents is shown in Table 2. One male participant was reported as missing data as he dropped out of the program at the third day. Seven parents were included in the final analysis.
<table>
<thead>
<tr>
<th>Variables</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>6</td>
<td>75</td>
</tr>
<tr>
<td>Male</td>
<td>2</td>
<td>25</td>
</tr>
<tr>
<td><strong>Marital Status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>5</td>
<td>72</td>
</tr>
<tr>
<td>Widow</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>Single</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>Divorced</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Country of Origin</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mexico</td>
<td>5</td>
<td>71</td>
</tr>
<tr>
<td>Colombia</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Cuba</td>
<td>2</td>
<td>29</td>
</tr>
<tr>
<td>Dominican Republic</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Puerto Rico</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Honduras</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Educational Level</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High school or GED</td>
<td>3</td>
<td>47</td>
</tr>
<tr>
<td>Associated degree</td>
<td>2</td>
<td>29</td>
</tr>
<tr>
<td>College degree</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>Graduate degree</td>
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<td>0</td>
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<tr>
<td>Other</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td><strong>Employment status</strong></td>
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<td></td>
</tr>
<tr>
<td>Employed full time</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>Employment part-time</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Unemployed</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Retired</td>
<td>2</td>
<td>29</td>
</tr>
<tr>
<td>Disable or unable to work</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Homemaker</td>
<td>3</td>
<td>43</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td><strong>Mean years living in the US</strong></td>
<td>20.11</td>
<td></td>
</tr>
<tr>
<td><strong>Mean years living in SC</strong></td>
<td>4.82</td>
<td></td>
</tr>
<tr>
<td><strong>Mean weekly income ($)</strong></td>
<td>147.5</td>
<td></td>
</tr>
</tbody>
</table>

Note. * Gender is the only variable that can include the total number of participants N=8. One participant did not complete the demographic questionnaire therefore was reported as missing data. N=7
** N=6. One of the participants reported receive the minimum wage salary; however, didn’t mention how many hours of work.
Table 3 presents the knowledge scores at different points in time within groups and for the entire study sample.

### Table 2.3: Knowledge score for children

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mdn</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Comparison</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge score pretest</td>
<td>12</td>
<td>5.00</td>
<td>6.08</td>
<td>2.39</td>
<td>3.00</td>
</tr>
<tr>
<td>Knowledge score posttest</td>
<td>12</td>
<td>10.50</td>
<td>10.33</td>
<td>1.49</td>
<td>8.00</td>
</tr>
<tr>
<td>Knowledge score post-delayed test</td>
<td>12</td>
<td>7.00</td>
<td>7.92</td>
<td>2.72</td>
<td>3.00</td>
</tr>
<tr>
<td><strong>Treatment</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge score pretest</td>
<td>11</td>
<td>6.00</td>
<td>5.81</td>
<td>1.99</td>
<td>3.00</td>
</tr>
<tr>
<td>Knowledge score posttest</td>
<td>7</td>
<td>10.00</td>
<td>9.85</td>
<td>2.19</td>
<td>6.00</td>
</tr>
<tr>
<td>Knowledge score post-delayed test</td>
<td>5</td>
<td>6.00</td>
<td>6.40</td>
<td>3.04</td>
<td>3.00</td>
</tr>
<tr>
<td><strong>All participants</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge score pretest</td>
<td>23</td>
<td>5.00</td>
<td>5.95</td>
<td>2.16</td>
<td>3.00</td>
</tr>
<tr>
<td>Knowledge score posttest</td>
<td>19</td>
<td>10.00</td>
<td>10.15</td>
<td>1.74</td>
<td>6.00</td>
</tr>
<tr>
<td>Knowledge score post-delayed test</td>
<td>18</td>
<td>7.00</td>
<td>7.50</td>
<td>2.81</td>
<td>3.00</td>
</tr>
</tbody>
</table>

A Mann-Whitney Test was used to examine potential differences in nonparametric data of knowledge scores at pre-, post-, and post-delayed tests for those children involved in the Jump into Food and Fitness Program. This test is equivalent to the independent t-test and is used when sample sizes are small and data are not normally distributed (Lyman 2001). Table 4 presents the relationship between timepoints for those involved in the program. To do that, the mean ranks, sum of the ranks, Whitney U statistic test, Wilcoxon X statistic test, and the Z and P values were conducted to test the following hypotheses:

Ho: There is no statistically significant difference in the children’s median knowledge score for the comparison group versus the treatment group at pretest.
Ha: There is a statistically significant difference in the median knowledge score for the comparison group versus the treatment group at pretest.

Ho: There is no statistically significant difference in the children’s median knowledge score for the comparison group versus the treatment group at posttest.

Ha: There is a statistically significant difference in the median knowledge score for the comparison group versus the treatment group at posttest.

Ho: There is no statistically significant difference in the children’s median knowledge score for the comparison group versus the treatment group at post-delayed test.

Ha: There is a statistically significant difference in the median knowledge score for the comparison group versus the treatment group at post-delayed test.
Table 2.4: Association among: pretest, posttest and post-delayed test in the comparison group and treatment groups for children

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>M Rank</th>
<th>∑ of Ranks</th>
<th>U</th>
<th>W</th>
<th>Z</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Comparison</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge score pretest</td>
<td>12</td>
<td>12.17</td>
<td>146.00</td>
<td>64.00</td>
<td>130.00</td>
<td>-.125</td>
<td>.901</td>
</tr>
<tr>
<td><strong>Treatment</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge score pretest</td>
<td>11</td>
<td>11.82</td>
<td>130.00</td>
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<td></td>
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<td></td>
</tr>
<tr>
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<tr>
<td><strong>Comparison</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge score posttest</td>
<td>12</td>
<td>10.29</td>
<td>123.50</td>
<td>38.5</td>
<td>66.50</td>
<td>-.303</td>
<td>.762</td>
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<tr>
<td><strong>Treatment</strong></td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>Knowledge score posttest</td>
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<td>9.50</td>
<td>66.50</td>
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<tr>
<td><strong>All participants</strong></td>
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<td></td>
</tr>
<tr>
<td>Knowledge score posttest</td>
<td>19</td>
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<td></td>
</tr>
<tr>
<td><strong>Comparison</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge score post-delayed test</td>
<td>13</td>
<td>10.31</td>
<td>134.00</td>
<td>22.00</td>
<td>37.00</td>
<td>-1.04</td>
<td>.296</td>
</tr>
<tr>
<td><strong>Treatment</strong></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Knowledge score post-delayed test</td>
<td>5</td>
<td>7.40</td>
<td>37.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>All participants</strong></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Knowledge score post-delayed test</td>
<td>18</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

U = Whitney  
X = Wilcoxon X  
Z= Z score

The children’s knowledge score at pretest for the comparison group is not statistically significantly different ($Mdn=5$, $U=64$, $P=0.901$) from the knowledge score at pretest for the treatment group ($Mdn=6.00$). The knowledge score at posttest for the comparison group is not statistically significant different ($Mdn=10.50$, $U=38.5$, $P=0.762$) from the knowledge score at posttest for the treatment group ($Mdn=10.00$).

Finally, the knowledge score at post-delayed test for the comparison group is not statistically significant different ($Mdn=7$, $U= 22.0$, $P=0.296$), to the knowledge score at post-delayed test for the treatment group ($Mdn=6$).
The Friedman test is the non-parametric alternative to a repeated measures analysis of variance (ANOVA). It can be used to test for statistically significant differences between experimental conditions, or in this case timepoints, for the knowledge scores at pretest, posttest, and post-delayed test measures within a treatment condition. The scores for each variable are ranked (Field, 2005).

The Friedman test was used to test the null hypothesis that there are no statistically significant differences among the median knowledge scores at pretest, posttest, and post-delayed test for the students in a given treatment condition.

Ho: There is no statistically significant difference in pretest, posttest, and post-delayed test knowledge scores of children within the comparison group.

Ha: Knowledge scores are statistically significantly different for at least one pair of measurement timepoints within the comparison group.

Ho: There is no statistically significant difference in pretest, posttest, and post-delayed test knowledge scores of children within the treatment group.

Ha: Knowledge scores are statistically significantly different for at least one pair of measurement timepoints within the treatment group.

Table 2.5: Descriptive statistics; mean ranks and Friedman test in the comparison group

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
<th>M Rank</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Comparison</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge score pretest</td>
<td>12</td>
<td>6.08</td>
<td>2.39</td>
<td>3.00</td>
<td>10.00</td>
<td>1.29</td>
<td>.000</td>
</tr>
<tr>
<td>Knowledge score posttest</td>
<td>12</td>
<td>10.33</td>
<td>1.49</td>
<td>8.00</td>
<td>12.00</td>
<td>2.88</td>
<td></td>
</tr>
<tr>
<td>Knowledge score post-delayed test</td>
<td>12</td>
<td>8.00</td>
<td>2.82</td>
<td>3.00</td>
<td>12.00</td>
<td>1.83</td>
<td></td>
</tr>
</tbody>
</table>
The Friedman test indicates in Table 5 that there is a statistically significant difference among the knowledge scores timepoints within the comparison group \((P=.000)\). However, the test will not indicate which pair of timepoints differ.

<table>
<thead>
<tr>
<th>Variable</th>
<th>(N)</th>
<th>(M)</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
<th>(M_{\text{Rank}})</th>
<th>(P)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge score pretest</td>
<td>5</td>
<td>5.00</td>
<td>1.58</td>
<td>3.00</td>
<td>7.00</td>
<td>1.50</td>
<td>.115</td>
</tr>
<tr>
<td>Knowledge score posttest</td>
<td>5</td>
<td>9.20</td>
<td>2.28</td>
<td>6.00</td>
<td>12.00</td>
<td>2.70</td>
<td></td>
</tr>
<tr>
<td>Knowledge score post-delayed test</td>
<td>5</td>
<td>6.40</td>
<td>3.04</td>
<td>3.00</td>
<td>10.00</td>
<td>1.80</td>
<td></td>
</tr>
</tbody>
</table>

The Friedman test presents in table 6 that there is no statistically significant difference among knowledge scores timepoints within the treatment group \((P=0.115)\). It is relevant to mention that attrition from pretest to post-delayed test had occurred within the treatment group.
Post-hoc tests presented in Table 7 were conducted to test for differences in average ranks for all possible pairs (pretest and posttest, posttest and post-delayed test, and pretest with post-delayed test within the treatment condition (comparison group and treatment group) to determine paired statistically significant differences (Pett, 1997). A Bonferroni correction was applied to control the Type I error rate for the three panel comparison. Therefore, alpha was set $0.05/3 = 0.017$ (Field, 2005).

There is a statistically significant difference between the pretest and posttest ($P=0.002$), and posttest and post-delayed test ($P=.016$) in the comparison group; and even though the Friedman test showed that there is no difference for the treatment group ($P=0.115$), the Wilcoxon Signed Rank Test showed that there is a borderline difference
between pretest and posttest ($P=0.017$) in the comparison group. However, there is no
difference between the posttest and post-delayed test ($P=0.141$) and between the pretest
and the post-delayed test in the treatment group ($P=0.465$).

The Friedman test was used to test the null hypothesis that there are no
statistically significant differences among the mean beliefs scores, knowledge scores, the
mean behavior scores, and the mean food safety scores and at pretest, posttest, and post-
delayed test for the parents in the treatment condition.

Ho: There is no statistically significant difference in pretest, posttest, and post-
delayed test belief scores for the parents within the treatment group.
Ha: Belief scores are statistically significantly different for at least one pair of
measurement timepoints within the treatment group.

Ho: There is no statistically significant difference in pretest, posttest, and post-
delayed test knowledge scores for the parents within the treatment group.
Ha: Knowledge scores are statistically significantly different for at least one pair of
measurement timepoints within the treatment group.

Ho: There is no statistically significant difference in pretest, posttest, and post-
delayed test behavior scores for the parents within the treatment group.
Ha: Behavior scores are statistically significantly different for at least one pair of
measurement timepoints within the treatment group.

Ho: There is no statistically significant difference in pretest, posttest, and post-
delayed test food safety scores for the parents within the treatment group.
Ha: Food safety scores are statistically significantly different for at least one pair of
measurement timepoints within the treatment group.
The Friedman test shows in Table 8 that there is no statistically significant difference in pretest, posttest, and post-delayed test for belief ($P=0.142$) and knowledge scores ($P=0.368$).

Table 2.8: Descriptive statistics; mean ranks and Friedman test for belief and knowledge scores of parents in the treatment group

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
<th>M Rank</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Belief</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean belief score pretest</td>
<td>6</td>
<td>2.29</td>
<td>.423</td>
<td>1.57</td>
<td>2.71</td>
<td>1.42</td>
<td>.142</td>
</tr>
<tr>
<td>Mean belief score posttest</td>
<td>6</td>
<td>2.57</td>
<td>.255</td>
<td>2.29</td>
<td>2.86</td>
<td>2.08</td>
<td>.368</td>
</tr>
<tr>
<td>Mean belief score post-delayed test</td>
<td>6</td>
<td>2.62</td>
<td>.171</td>
<td>2.43</td>
<td>2.86</td>
<td>2.50</td>
<td></td>
</tr>
<tr>
<td><strong>Knowledge</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge score pretest</td>
<td>5</td>
<td>.400</td>
<td>.550</td>
<td>0</td>
<td>1.00</td>
<td>1.80</td>
<td>.368</td>
</tr>
<tr>
<td>Knowledge score posttest</td>
<td>5</td>
<td>.600</td>
<td>.550</td>
<td>0</td>
<td>1.00</td>
<td>2.10</td>
<td></td>
</tr>
<tr>
<td>Knowledge score post-delayed test</td>
<td>5</td>
<td>.600</td>
<td>.550</td>
<td>0</td>
<td>1.00</td>
<td>2.10</td>
<td></td>
</tr>
</tbody>
</table>

Table 9 presents that there is a statistically significant difference in at least one pair of behavior measurement timepoints for the parents within the treatment group ($P=0.009$). However, there is no significant statistically difference for food safety scores ($P=0.023$) for the parents at different points in time.

Table 2.9: Descriptive statistics; mean ranks and Friedman test for behavior and food safety scores of parents in treatment group

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
<th>M Rank</th>
<th>P</th>
</tr>
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<tbody>
<tr>
<td><strong>Behavior</strong></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Mean behavior score pretest</td>
<td>6</td>
<td>1.90</td>
<td>.245</td>
<td>1.60</td>
<td>2.20</td>
<td>1.08</td>
<td>.009</td>
</tr>
<tr>
<td>Mean behavior score posttest</td>
<td>6</td>
<td>2.50</td>
<td>.245</td>
<td>2.40</td>
<td>3.00</td>
<td>2.75</td>
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</tr>
<tr>
<td>Mean behavior score post-delayed test</td>
<td>6</td>
<td>2.37</td>
<td>.294</td>
<td>2.00</td>
<td>2.80</td>
<td>2.17</td>
<td></td>
</tr>
<tr>
<td><strong>Food safety</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean food safety score pretest</td>
<td>6</td>
<td>2.25</td>
<td>.418</td>
<td>1.50</td>
<td>2.50</td>
<td>1.17</td>
<td>.023</td>
</tr>
<tr>
<td>Mean food safety score posttest</td>
<td>6</td>
<td>3.34</td>
<td>.516</td>
<td>1.50</td>
<td>4.00</td>
<td>2.58</td>
<td></td>
</tr>
<tr>
<td>Mean food safety score post-delayed test</td>
<td>6</td>
<td>3.00</td>
<td>.849</td>
<td>1.50</td>
<td>4.00</td>
<td>2.25</td>
<td></td>
</tr>
</tbody>
</table>
Table 10 presents the mean belief, knowledge, mean behavior, and mean food safety scores for the parents at different points in time for the entire study sample.

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>Mdn</th>
<th>M</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mean Belief</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Score pretest</td>
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<td>2.36</td>
<td>2.21</td>
<td>.411</td>
<td>1.57</td>
<td>2.71</td>
</tr>
<tr>
<td>Score posttest</td>
<td>7</td>
<td>2.57</td>
<td>2.57</td>
<td>.232</td>
<td>2.29</td>
<td>2.86</td>
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<td>2.64</td>
<td>2.61</td>
<td>.172</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Score pretest</td>
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<td>.250</td>
<td>.462</td>
<td>.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Score posttest</td>
<td>6</td>
<td>1.00</td>
<td>.667</td>
<td>.516</td>
<td>.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Score post-delayed test</td>
<td>6</td>
<td>1.00</td>
<td>.667</td>
<td>.516</td>
<td>.00</td>
<td>1.00</td>
</tr>
<tr>
<td><strong>Mean Behavior</strong></td>
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<td></td>
</tr>
<tr>
<td>Score pretest</td>
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<td>2.00</td>
<td>1.58</td>
<td>.437</td>
<td>1.00</td>
<td>2.40</td>
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<tr>
<td>Score posttest</td>
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<td>2.40</td>
<td>2.54</td>
<td>.250</td>
<td>2.40</td>
<td>3.00</td>
</tr>
<tr>
<td>Score post-delayed test</td>
<td>6</td>
<td>2.30</td>
<td>2.37</td>
<td>.294</td>
<td>2.00</td>
<td>2.80</td>
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<td><strong>Mean Food Safety</strong></td>
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</tr>
<tr>
<td>Score pretest</td>
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<td>2.50</td>
<td>2.19</td>
<td>.458</td>
<td>1.50</td>
<td>2.50</td>
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<td>3.00</td>
<td>3.43</td>
<td>.534</td>
<td>3.00</td>
<td>4.00</td>
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<tr>
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<td>3.00</td>
<td>.894</td>
<td>1.50</td>
<td>4.00</td>
</tr>
</tbody>
</table>

A Wilcoxon Signed Rank test was conducted to test differences in average ranks for all possible pairs: pretest vs. posttest; posttest vs. post-delayed test, and pretest vs. post-delayed test to determine paired statistically significant differences. To control the Type I error rate for three panel comparison, a Bonferroni correction was applied. Therefore, alpha was set $0.05/3 = 0.017$ (Field, 2005).

Comparisons of mean belief scores and knowledge scores at different points for the parents involved in the program are shown on Table 11.
Table 2.11: Pairwise comparisons of parental mean belief and knowledge scores at different timepoints

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>Z</th>
<th>P</th>
</tr>
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<tbody>
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<td><strong>Belief</strong></td>
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<td></td>
<td></td>
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<tr>
<td>Mean belief score pretest vs.</td>
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<td>2.21</td>
<td>0.41</td>
<td>-2.12</td>
<td>.034</td>
</tr>
<tr>
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<td></td>
<td>2.57</td>
<td>0.23</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean belief score posttest vs.</td>
<td>7</td>
<td>2.57</td>
<td>0.23</td>
<td>-0.71</td>
<td>.480</td>
</tr>
<tr>
<td>Mean belief score post-delayed test</td>
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<td>2.61</td>
<td>0.17</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean belief score pretest vs.</td>
<td>6</td>
<td>2.21</td>
<td>0.41</td>
<td>-1.75</td>
<td>.080</td>
</tr>
<tr>
<td>Mean belief score post-delayed test</td>
<td></td>
<td>2.61</td>
<td>0.17</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Knowledge</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge score pretest vs.</td>
<td>8</td>
<td>0.25</td>
<td>0.46</td>
<td>-1.41</td>
<td>.157</td>
</tr>
<tr>
<td>Knowledge score posttest</td>
<td></td>
<td>0.67</td>
<td>0.52</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge score posttest vs.</td>
<td>6</td>
<td>0.67</td>
<td>0.52</td>
<td>0.000</td>
<td>1.00</td>
</tr>
<tr>
<td>Knowledge score post-delayed test</td>
<td></td>
<td>0.67</td>
<td>0.52</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge score pretest vs.</td>
<td>6</td>
<td>0.25</td>
<td>0.46</td>
<td>-1.41</td>
<td>.157</td>
</tr>
<tr>
<td>Knowledge score post-delayed test</td>
<td></td>
<td>0.67</td>
<td>0.52</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 12 presents pairwise comparison of parental mean behavior scores and mean food safety scores for parents at different points for the parents.
Table 2.12: Pairwise comparisons of parental mean behavior and mean food safety score ranks at different timepoints

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>Z</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Behavior</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean behavior score pretest vs.</td>
<td>8</td>
<td>1.85</td>
<td>0.44</td>
<td>-2.40</td>
<td>.016</td>
</tr>
<tr>
<td>Mean behavior score posttest</td>
<td>7</td>
<td>2.54</td>
<td>0.25</td>
<td>-1.41</td>
<td>.157</td>
</tr>
<tr>
<td>Mean behavior score posttest vs.</td>
<td>6</td>
<td>1.85</td>
<td>0.44</td>
<td>-2.03</td>
<td>.042</td>
</tr>
<tr>
<td>Mean behavior score post-delayed test</td>
<td>6</td>
<td>2.37</td>
<td>0.29</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Food Safety</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean food safety score pretest vs.</td>
<td>8</td>
<td>2.18</td>
<td>0.46</td>
<td>-2.39</td>
<td>.017</td>
</tr>
<tr>
<td>Mean Food Safety score posttest</td>
<td>6</td>
<td>3.43</td>
<td>0.53</td>
<td>-0.96</td>
<td>.336</td>
</tr>
<tr>
<td>Mean food safety score posttest vs.</td>
<td>6</td>
<td>3.00</td>
<td>0.89</td>
<td>-1.84</td>
<td>.066</td>
</tr>
<tr>
<td>Mean food safety score post-delayed test</td>
<td>6</td>
<td>2.18</td>
<td>0.89</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There is a statistically significant difference between the pretest and the posttest for mean behavior scores (P=0.016). Even though the Friedman test showed that there is no statistically significant difference for Food safety scores, a borderline difference between pretest and posttest is shown. (P=0.017). However, there is no difference in any of the comparisons between the pretest and posttest for mean belief scores and for knowledge scores; there also is no difference between posttest and post-delayed test for mean belief, knowledge, mean behavior, and mean food safety scores. Finally, there is no difference between pretest and post-delayed test for mean behavior, knowledge, mean behavior and mean food safety scores.
1) **Qualitative analysis:**

   \[a\])  **Children open-ended surveys: for treatment and comparison group**

   At the beginning of the session children were asked to answer questions about the program done the day before. Table 13 presents their responses complied following three major categories: Learning outcomes, meanings of the Kids Activity Pyramid and MyPyramid; and intentions.

<table>
<thead>
<tr>
<th>Major themes</th>
<th>Examples of quotes given by the children</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Learning outcomes</strong></td>
<td>(...) you need healthy food&lt;br&gt; (...) foods that are good for you</td>
</tr>
<tr>
<td>MyPyramid and the Kids activity pyramid can help you to be healthy</td>
<td>(...) that you can play (and that can help you) to be healthy&lt;br&gt; (...) you need to make better choices in what eat and do so you can be healthy&lt;br&gt; (...) so MyPyramid showed me that the more rice, wheat, barely I eat I’ll be healthier. The Kids activity pyramid showed me that …I need to work-out more because I am out of shape.</td>
</tr>
<tr>
<td>Importance of healthy foods</td>
<td>(...) I learn that you have to eat healthy food to grow big and strong and don’t get sick a lot of times</td>
</tr>
<tr>
<td>Variety</td>
<td>(...) I learn how to eat different kinds of foods.&lt;br&gt; (...) we have to try to eat different colors of foods every day</td>
</tr>
<tr>
<td>Eat less oil</td>
<td>(...) stay away of fats and oils</td>
</tr>
<tr>
<td>Food Groups</td>
<td>(...) I learned about grains, fruits and vegetables&lt;br&gt; (...) milk helps you to get strong bones and help your teeth&lt;br&gt; (...) I learn about whole grain and refined&lt;br&gt; (...) meat and beans are the foods that let us move, jump, hop, skip and stretch. The foods are chicken, steak, beans and seeds.&lt;br&gt; (...) grains have carbohydrates&lt;br&gt; (...) I enjoyed learning about fruits and vegetables because they are giving you vitamins A and C.</td>
</tr>
<tr>
<td>Food Safety</td>
<td>(...) I learn about washing my hands for 20 seconds&lt;br&gt; (...) you are not suppose to drink milk from a container, and don’t eat food that is outside the refrigerator.&lt;br&gt; (...) wash your hands because you might touch your dog.&lt;br&gt; (...) it is important to follow kitchens safety rules because you might get hurt or burn</td>
</tr>
<tr>
<td>Muscles</td>
<td>(...) I learn all different muscles&lt;br&gt; (...) I learn about muscles where they are and what are they called.&lt;br&gt; (...) I enjoyed learning about muscles because really I don’t know about muscles</td>
</tr>
<tr>
<td>Importance of Breakfast</td>
<td>(...) you should eat breakfast every morning</td>
</tr>
</tbody>
</table>
(... keep you focus and concentrated
(... not to feel tired
(... because give as energy
(... a good idea is to have breakfast so when you go to school you won’t have your stomach empty
(... it’s the most important meal of the day

Nutrition Fact labels
(... you have to read the labels on drinks or snacks and see what is good for you.
(... reading the nutrition facts so you will know the calories and the content fat.

Meaning of the Kids Activity Pyramid and MyPyramid
(... the stair represent that you have to be active

Similarities between MyPyramid and Kid’s Activity Pyramid
(... are the same by telling you being active and healthy
(... both are pyramids
(... both have exercise
(... tells and shows you healthier choices

Differences between MyPyramid and Kid’s Activity Pyramid
(... one is about food, the other about exercise
(... MyPyramid shows you what is good for you to eat while the Kids activity pyramid shows you how much to exercise.
(... MyPyramid tells what to eat and what not to eat. The Kids activity pyramid told us what to do, when and for how long.

Intentions

Dietary
(... I am going to eat more vegetables and more fruits.
(... I would like to make the snack that I made here (in the program)
(... The food that I might try rice, broccoli, and the lima beans
(... I might try strawberry and peaches, grapes, yogurt and crackers

Physical Activity
(... I will try to jump rope at home
(... Running, push-ups and walking
(... I will try to run around my house
(... I might try soccer, basketball and running

Activity snacks to be done with family
(... I will try to do curl-ups
(... me and my family can do 20 push-ups
(... the activity that I can do with my family is the one that you can get the words and you have to do it (what is says e.g. jumping, jab or kick boxing)
(... stretching and making the L position.

Show/share to an adult
(... you have to eat healthy food and a lot of fruit
(... that eat good food will give you energy to play all day
(... I will share with my mom how you can be active and what you have to eat to get stronger.
(... (I will share) the exercise part because you can be in shape. Also sometimes the family will be together

b) Focus Groups of Parents in the treatment group

Two focus groups were conducted with parents participating in the treatment group to get more in-depth information about the content of the newsletters and the
program. A trained moderator with previous experience conducted the focus groups sessions, using a standardized protocol of questions and probes (Evans, Wilson, Buck, Torbett & Williams, 2006). Table 14 presents parent’s responses complied and themes highlighted.

Table 2.14: Major themes and examples of quotes giving by the parents in the focus group interviews conducted in the intervention group

<table>
<thead>
<tr>
<th>Major themes</th>
<th>Examples of quotes given by the parents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preferred learning environments/approaches</td>
<td>(...) The program was very good and complete</td>
</tr>
<tr>
<td>Hands by doing-approach</td>
<td>(...) I enjoyed being cooking in the kitchen (…) in the WIC, people give you only a paper with the information that you have to read. I am glad because here I am learning how to have a healthy diet and how to combine foods (…) the written information in the newsletter is important, as well as the practice in the kitchen</td>
</tr>
<tr>
<td>Small groups</td>
<td>(...) It was informal (the program) and I was feeling very comfortable with that; we were able to know each other better. If we would have a bigger group, everything would be different. I can’t talk if there are a lot of people.</td>
</tr>
<tr>
<td>Family participation</td>
<td>(...) I believe that the best approach is what you are doing, having the parents or grandparents involved in the program with their children.</td>
</tr>
<tr>
<td>Usage of Internet</td>
<td>(...) Children are using the Internet the most when their parents are working. Parents don’t use Internet. They don’t know how to do it. They are afraid that their children could download pornography. Parents don’t know that they can block particular web sites.</td>
</tr>
<tr>
<td>Motivation to learn more about healthy eating and exercise</td>
<td>(...). hiding vegetables is a good way to incorporate vegetables in our families’ diet (…) combining different type of fruit with other foods such as yogurt (…) to learn about the pyramids (this is, MyPyramid and Kid’s Activity Pyramid) (…) I like (that) the food(s) you brought were easy for us to identify (…) the foods that you brought were familiar to us, not from another world.</td>
</tr>
<tr>
<td>Connection of persona/family behaviors with health</td>
<td>(...) we are not focused only on ourselves; we are focused on our family and children. (…) what I liked the most is having the family participating, such a nice experience!</td>
</tr>
<tr>
<td>Newsletters</td>
<td>(...) the information presented and the language used is easy to understand (…) it is very important that (it) contain(s) pictures to visualize the concept while you are reading the information (…) the information that has been summarized on the newsletter is the information that we need to know. (…) Contains a lot of information that (I) can share with my husband or children (…) there are good sources of information, have a lot of examples and also give us resources to search for more information.</td>
</tr>
</tbody>
</table>
having something written on a paper can help as to remember or to learn something new

Cons

(…) (through it away the newsletter) because we are not here; with a person in front of us telling that we have to look to this and to that, in the same way that you did with us
(…) Not only is (it) important to see and read the information but also to learn how to do it. (that is related to receive only the written information from the newsletter and not participating in the program)

Usability

(…) if I only received the newsletter, I will just read the most interesting topic (…) will end-up in the trashcan
some people can believe that are advertisements and throw it away without reading
(…) The good thing about this is, if a person is taking this home, will read it and realize that they are giving you examples such as the recipes, and if you have a cousin or a friend, you can help her giving the newsletter and letting her know that this information is good for her.

Food Safety

(…)Washing fruits and vegetables without soap or detergent, handling knives, wash and clean all the cooking utensils, the usage of oven mitts or potholders, and finally how to defrost meats.

IntenTions

To change diet

(…) The advantage is that we are the ones that cook, and we decide what types of foods to combine; therefore, we can introduce the changes and they don’t even know what we are doing in the kitchen. However, we have to do it step by step; we have to change only one ingredient at a time.
(…) introduction of the new food ingredients hidden, such as vegetables in quesadillas. If you do it in a tasty way, they will be accepting the change.
(…) Some tips can be to reduce fat. When you are cooking with bacon, you can remove half of the fat and you can incorporate in the recipe more ham…fruits and vegetables, whole grain for breakfast and for lunch.
(…) and (I loved) to incorporate vegetables in my diet

To change physical activity

(…)What we usually do is eat and watch television at the same time; however, we now realize that watching TV is not a good thing to do. You are not doing exercise like going for a walk
(…) It is important that children can realize that adults can play like children. I feel embarrassed when I have to do physical activity
(…) stretching before and after exercising and doing exercise step by step
(…) I need someone who is encouraging me to do it. Alone is more difficult (…) Exercising for me is embarrassing’ However, if I could do physical activity with my children, I know that we couldn’t do it in the program.
(…) I will do the changes step by step. I love to do physical activity.

Discussion

The aim of the pilot study was to determine the effectiveness of the nutrition and physical activity program—“Jump into Food and Fitness”—on knowledge, attitudes, and a self-reported behavior among Hispanic children ages 8–11 and their parents.
Even though different methods were used for the recruitment process—e.g., formal contact was established with people who work in hospitals and/or who work with the Hispanic community—the process sometimes was difficult to do.

Other strategies used to invite people to participate in the program were through radio announcements, by word of mouth in churches, personal invitations, and flyers. Of the total children participants, \( N=24 \), the final participation rate was 79.2 percent and only 75 percent did the post-delayed test.

The reasons for dropping out include: one of the parents in the treatment group had to work so his three sons dropped out the third day of the program; one of the child in the treatment group started classes earlier and dropped out two days before the program ended; and one of the families (mother and two daughters) that completed the study were out of the country while the post-delayed survey was done.

Results of this pilot study should be interpreted within the context of the limitations of the study design, small sample size and attrition from pre to post-delay test decreasing the power of the study to detect differences. Participants from Anderson and Orangeburg who originally were in different groups were merged into one group, as the number was very small. Since it had a brief period of intervention of one week during 3 ½ hours, and included only 24 children, only 22 of whom were able to answer the post-delayed test, it lacked sufficient ability to detect statistically significant differences in knowledge scores. Therefore, no significant differences were found between posttest and post-delayed test and between pretest and post-delayed test for the treatment group.
However, a statistically significant difference was seen between the pretest and posttest for those in the treatment group.

In the case of the parents, only seven of them were present the whole week and one of them couldn’t be contacted to do the follow-up. A statistically significant difference was found between the pretest and the posttest for mean behavior Scores \((P=0.016)\), and a significant difference also was found between pretest and posttest for food safety \((P=0.017)\).

Nevertheless, parental participation and involvement in programs developed to prevent childhood obesity is decisive and critical (Story, 2003). Focus group interviews conducted with parents reveal that the level of engagement of the family members was positive, and they highlight the importance of participating in the program with their children. Systematic reviews reveals the importance of having the family involved in primary prevention programs (Perry et al., 1988; Luepker et al. 1998; Levine et al., 2001; Story et al., 2003 and Heimendinger et al., 2006).

Event though participants from one focus group wished that the program had been longer than one week, they liked being in a program with a small number of participants because that gave them confidence to talk and ask questions. In both focus groups liked that the program had a “hands-on approach” in which they were able to cook and learn at the same time.

In relation to the newsletters, in one focus group mentioned that a good resource to learn from and to look to remember concepts, but in other focus group said that is not
enough. They liked the approach that the research team was using, having the newsletters and also working with them in the kitchen.

Regarding physical activity, even though walking around a perimeter was part of the program from the beginning, in Anderson, one of the principal investigators decided not to do the activities because two of the participants were pregnant and he didn’t want to risk their health. However, in Orangeburg, there were no pregnant women but the investigator decided not to do it anyway. Furthermore, participants said in the focus group that they were expecting to do physical activity as it was announced in the previous meeting by the researcher. Muscle stretching was the only physical activity that was done with the participants during the program. In one focus group, participants reported feeling embarrassed to do physical activity, and they suggested the possibility of working with their children. The need of peer pressure to do physical activity is another topic mentioned in the focus groups.

In relation to the availability of water, which was mentioned in one focus group as something to improve, the staff provided enough water to all the participants during the day. Water breaks were taken after doing physical activity with the children two times during the day, during the snack, and after the program had ended.

In one focus group was suggested the importance of learning how to analyze what they are consuming, using a 24-hour dietary recall could be a good strategy. Luepker et al. (1998) said that the food recall data revealed changes in the daily eating patterns and significantly decreased their intake of total fat, saturated fat, and cholesterol.
In two focus group was reported as difficult to understand or confusing “Nutrition Facts Labels and Measurements.” It would be necessary to work longer on these particular topics. Parents also said that they would like to learn more about macronutrients.

At the end of one focus groups, was mentioned that a good strategy to have more participants would be going to church after mass with tortillas or a healthy cake and let parishioners try them while talking about the program. Furthermore, people who already participated in the program can invite more people to participate.

It is possible that a more intense or longer intervention than that used here could have been more succesful in having a positive effect on knowledge, attitudes, and self-reported behaviors in the treatment group.

In relation with Internet as a good resoruce to be used with the Hispanic community, in one focus group reported that “children are using the Internet the most when their parents are working. Parents don’t use Internet. They don’t know how to do it. They are afraid that their children could download pornography. Parents don’t know that they can block particular web sites.” According to Jantz et al (2002) interactive multimedia (IMM) is an effective tool for increasing nutrition-related knowledge among low-income persons. The results from their studies with low-income predominantly Hispanic shows that over 94% of participants improve their total knowledge and attitude score from pretest to posttest using. In this particular intervention, participants didn’t own computers, there will be positioned in waiting areas of agencies serving low-income populations. According to Woodall et al (2007) Hispanics were less frequent users of the
Internet and the challenge will be to meet their needs with effectively designed Internet communication. In this intervention, when necessary, community outreach trainers provide basic computer and internet skills.

**Conclusion:**

The Jump into Food and Fitness curriculum was successful at improving knowledge scores among Hispanic school age children at pretest and posttest ($P=.002$), and posttest and post-delayed test ($P=.016$) in the comparison group; and a difference between pretest and posttest ($P=0.017$) in the comparison group. For the parents in the treatment group a significant statistic difference between pretest and the posttest for mean behavior scores ($P=.016$), and a difference between pretest and posttest is shown for food safety scores. ($P=.017$). However, because of a small sample size and attrition from pre-to post- and post-delayed tests and the short time-frame imposed on the intervention, the results of this pilot study were inconclusive in determining if the addition of the parents component had an additive effective in the desired knowledge among children in the treatment group.

Qualitative analysis provided us with information that highlight that parents are interested and motivated to participate in this type of program and value the family approach to improving health. Other research supports the benefit of working with parents to improve diet and activity behaviors of their children. Futures studies using JIFF in conjunction with the parent component should strive to increase parental enrollment and to allow for a longer time period to allow for desired changes to occur.
Overall, the study suggests that the Jump into Food and Fitness curriculum can be adapted and administered with Hispanic children and families. Further investigation needs to be done to find the best strategies to improve knowledge, attitudes, and self-reported behaviors in the Hispanic community, and getting more parents to participate in the program with their children.
References


Introduction

Over the past 30 years, the prevalence of overweight and obesity has increased sharply for both adults and children. In 2005–2006, more than 34% of adults aged 20 years or older were obese. The prevalence of overweight among children aged 2–5 years increased from 5.0% during the period from 1976–1980 to 13.9% during 2003 and 2004. During the same periods, the prevalence increased from 6.5% to 18.8% among young people aged 6–11 years, and 5.0% to 17.4% among those age 12–19 years (U.S. Department of Health and Human Services, 2008). In 2004, approximately nine million children over 6 years of age were obese (Institute of Medicine of the National Academies, 2004). Currently at least 1 in 5 children in the U. S. is overweight or obese, and there is a continuing upward trend (Troiano et al., 1995). Obesity is considered the most widespread and severe nutritional problem among children in the United States (Crawford et al., 2001).

William Dietz explained that about one third of adult obesity begins in childhood and tends to be more severe and perhaps more associated with adverse effects; therefore, childhood obesity may contribute to a disproportionate percentage of the complications of adult obesity (US Department of Agriculture, 1998). Crawford et al. (2001) explained that Hispanics in general are more likely than Whites to experience impaired glucose tolerance, type 2 diabetes, lower HDL cholesterol concentrations; and higher
concentrations of triglycerides, total cholesterol, and VLDL. Consequently, prevention of obesity in childhood and effective treatment of overweight children are essential (Whitaker, 1997).

Minority groups in the United States have the highest rates of overweight and obesity, affecting approximately 65% of African-Americans, 51% of Hispanics, and 64% of Native Americans (U.S. Department of Agriculture, 1998; SC Department of Health and Environment Control, 1999; Ogden et al., 2006 and Dalton et al., 2007). The national Youth Risk Behavior Survey reported that Hispanic youth in the United States experienced an increase in obesity prevalence rates from 13.6% in 1999 to 16.6% in 2007, which included a slight drop from 16.8% 2005 to 16.6% in 2007.

Along with increased obesity, there was a decreasing trend in daily attendance in physical activity classes on 1991 to 2007, from 46.6% to 36.0% (Center for Disease Control and Prevention, 2007)

Overweight and obesity are growing at epidemic proportions in South Carolina. The Center for Disease Control and Prevention reported that South Carolina had the sixth-highest rate in the nation in 2007. Rates of overweight and obesity are not well documented in South Carolina. Applying National rates from the Third National Health and Nutrition Examination Surveys (NHANES III) to the South Carolina youth population, we would estimate that 136,800 youth age 6-17 are overweight and 67,810 youth are obese. In 2005, the South Carolina Youth Risk Behavior Survey (YRBS) reported that 12.7 percent of South Carolina’s high school students are overweight, with body mass indexes that are at or above the 95th percentile nationally for their age and
gender. An additional 13.7% those who have body mass indexes at or above the national 85th percentile for their age and gender are considered at risk of becoming overweight (SC Department of Health and Environmental Control, 2006). According to surveillance data reported in 2006 by the SC DHEC, minorities in South Carolina are disproportionately affected by overweight and obesity; more Hispanic children ages 2-5 are overweight (17.9%) compared to African-American children (12.3%), or White children (11.1%).

Physical inactivity and poor dietary habits, including low levels of fruit and vegetable consumption, contribute to overweight and obesity. About two-thirds of young people in grades 9-12 are not engaged in recommended levels of physical activity (SC Department of Health and Environmental Control, 2006). Physical inactivity, overweight and obesity are particularly prevalent in Hispanic adults and children (Troiano et al., 1995; Flegal et al., 1998 and Heath & Coleman, 2002). In 1999, the South Carolina Youth Risk Behavior Survey (YRBS) provided information about physical activity and diet. Physical activity is considered a critical factor in lifelong health, but only 60% of high school students met recommendations for regular physical activity in South Carolina. Male students were slightly more active than females (66.1% vs. 54.0%), and African-American and Hispanics students were less active than White students: 66.4% of White students met the recommendations for regular physical activity, compared with 60.9% for Hispanic students and 52.9% for African-American students (SC DHEC, 2005).

Along with adequate physical activity, good nutrition is a cornerstone of healthy living. Good nutrition includes eating whole grains, fruits and vegetables, and limiting
calories from fat and total calories per day in keeping with levels of physical exercise. In recent years, the high-calories foods have become more available and accessible, and portion sizes have increased significantly. Although South Carolina adults are not consuming adequate fruits and vegetables, Hispanic and African-Americans high school students (20% and 26.6% respectively) consume the recommended servings of fruits and vegetables each day to a greater degree than White students (13.9%) (SC DHEC, 2005).

Nutrition education, exercise, and behavioral interventions are the foundation of treatment for overweight and obese adults and at-risk (for overweight) or overweight children. Nutrition educational programs are aimed at improving nutritional choices, increasing physical activity, and decreasing sedentary activity. The programs are also based on decreasing portion sizes, lowering fat intake, decreasing sweetened drinks, and increasing intake of lean meats and fish, whole grains, fruits, and vegetables. A balanced nutritional approach teaches parents and children to eat foods within their cultural preference by making small changes in portions and in the fat content of their recipes and by substituting healthier ingredients without dramatically changing the basic foods that they regularly eat (Berry et al., 2007).

Berry, Savoye, Melkus and Gray (2007) reported that, to date, most family-based interventions for children have been conducted on middle-class White children and adults, whereas the prevalence of obesity is higher in Hispanic, African-American and Native American adults and children.
**The Hispanic Culture**

Hispanics represent a mix of historical and cultural backgrounds. Groups varied in socioeconomic status, culture and language. The U.S. Census Bureau defines Hispanic or Latino as a person of Cuban, Mexican, Puerto Rican, Dominican, South Central American or other Spanish culture of origin regardless of race (Pérez-Escamilla, 2007).

The Hispanic family is often patriarchal, with male heads of the house fulfilling a strong authoritarian role, and many Hispanic males prefer their wives to stay at home with the children. The Hispanic family is the most important vehicle for the transmission of the values and beliefs (Warrix & Bocanegra, 1998).

Warrix and Bocanegra (1998) explained that personalism and familism are essential and key values in the Hispanic culture. “Personalism” refers to the faith in “person-to-person contact,” so educators should personalize their programs to reach out to the community. On the other hand, “familism” refers to the tendency for all individual decisions to be made with regard to the well being of the family. Consequently, sometimes parents tend to be overprotective with their children, which could manifest in over-feeding or unwise food indulgences.

**Nutrition Component**

A culture-centered approach is indispensable to reducing health disparities related to ethnicity (Robinson, Anding, Garza & Hinojosa, 2003). Therefore, an effective educational program design will be culturally-appropriate. For instance, when designing nutrition educational programs with Hispanics, it is important to know that subgroups
sometimes consume the same food with different names: dried beans and rice are staples among most Hispanics, but they may be known by different names in different subgroups; knowing the appropriate terminology and pronunciation will help educators to avoid mistakes while referring to cultural foods. It is important also to be able to identify specific cultural foods, like Puerto Ricans’ yucca and Yautía, since there is little point in designing a nutritional program that excludes foods commonly consumed (Warrix & Bocanegra, 1998).

**Description of the pilot investigation**

This research investigation was part of The EXPORT Center, a center of Excellence in Partnerships Community Outreach, Research on Health Disparities, and Training. It was supported by a grant from the National Center on Minority Health and Health Disparities, National Institutes of Health. The South Carolina counties designated in the grant to conduct the research project were Oconee, Anderson, Orangeburg, Lexington, Bamberg and Calhoun. Even though only small Hispanic communities live in Lexington, Bamberg, Calhoun and Orangeburg counties, Orangeburg County was selected for the intervention as a useful contact had been established with a Colombian priest at Holy Trinity Catholic Church in that county.

The research staff was able to make personal contact and recruit participants by word of mouth, through churches and other meeting places, and by personal invitation and flyers. One month before the intervention began, the researcher staff attended mass in Orangeburg and talked to and shared lunch with the community to develop a relationship
of trust. In Orangeburg, participants were contacted in the church by personal invitation and using flyers. Two weeks before starting the program, the researcher contacted the participants by phone and reminded them about the research program, since repeated contact with participants before starting the program increases participation. Participants were reminded of the day of the first meeting and that both children and adults needed to wear comfortable shoes and clothes. Later, the researcher decided to change the dates of implementation, as there weren’t enough participants to start the program. This was a difficult decision to make because it means that some confirmed participants will drop out because of other commitments for the new date. The researchers also had to decide whether to implement the program in the mornings or in the afternoons, and either choice would mean the loss of some participants. A working relationship to implement the program was established with the 4-H Clemson Extension Agent in Orangeburg County and, through the agent, a contact relationship was established with a Spanish teacher who worked in the county’s Department of Health. While the teacher gave the researcher a list of five families willing to participate in the program, when the researcher called the participants to explain the details of the program, none of them decided to participate. In one case, the brother of the participant was very concerned and even annoyed; as he claimed never reveal his phone number to anyone. Another problem occurred because the people in the Hispanic community had misunderstood the teacher’s name and changed it for another, so some contacts didn’t recognized the name when the researcher invoked it.

Even though the target audience for this pilot study was children age 8 to 11, the researcher accepted youth age 12 and 13 to increase the number of participants. Adults
without children, an older sister (17 years old) with her brother and cousin, and a grandmother with her granddaughter were also accepted as participants.

In Oconee County, the researcher was looking only for children as participants. Formal contact was established with the Community Outreach at James M. Brown Elementary School, where the intervention was conducted, and with the priest at St. Paul the Apostle Catholic Church in Seneca, Oconee County. On one Sunday, the priest allowed a researcher to speak to the congregation for five minutes before the mass was finished, and participants were registered afterward. This was a very effective strategy to do, and most of the participants were from the church.

Formal contact was established also with the Director of the Hispanic Initiative for the Old 96 Girl Scouts Council in Greenville, SC. An informal session was held in Seneca Library, where the Director was meeting with some parents and children. This was a good strategy also, as the researcher registered three participants. A session was also organized in the Light of the World Church in Walhalla, where participants were attending a program in nutrition with a Hispanic doctor who worked for the Sullivan Center. Although this was another positive strategy, more participants were recruited through the church as participants knew and trusted the contact.

A work relationship was also established with the 4-H Extension Agent in Anderson County who was working with the researcher, teaching the Jump into Food and Fitness (JIFF) program to children.

Formal contact was established with the Diversity/Interpretation Services Coordinator at Anderson Medical Center, after which the researcher left the Coordinator
several flyers and gave her time to promote the program. After several weeks, a session
took place at the Recreation Center Anderson Medical Center, but the coordinator forgot
to call many participants to remind them of the meeting, and only one parent with his
child attended. Afterward, the researcher made contact with the ten families on the
coordinators list, and four agreed to participate. Among the adult participants was a
woman pregnant with her first child, but the principal investigator of the project allowed
her to participate. During the program, one participant and his three children had to drop
out of the program. As another way to recruit participants, a post-doctorate from Clemson
University and a researcher promoted the program during talks about nutrition on radio
talk shows in Spanish. Even though that was a good strategy, the researcher hypothesized
that, in this case, it wasn’t useful as it was a Greenville radio station and most people who
were interested in participating lived too far away from Anderson Recreation Center and
did not show up for the program.

Another circumstance that made the recruitment process challenging was that,
because the money for the pilot project was provided supported by a grant from the
National Center on Minority Health and Health Disparities, researchers needed to spend
all the money that they had to implement the project before August, 20, 2007, so their
time for the recruitment process was limited.

**Program Description**

Jump into Food and Fitness (JIFF) is a curriculum developed by the Michigan
State University Extension’s Children, Youth and Family Programs and the MSU
Department of Kinesiology (2003-2006) for children age 8 to 11 (grades 3 to 5) to help them develop healthier lifestyles that can improve their overall health. It is structured in eight lessons. A synthesis of the themes from each lesson is presented in Table 1.

Table 3.1: Weekly themes for children.

<table>
<thead>
<tr>
<th>Lesson Number</th>
<th>Theme Nutrition Activities</th>
<th>Theme Physical Activities</th>
</tr>
</thead>
</table>
| Lesson 1      | Evaluation  
My pyramid  
Food Safety: hand washing  
Healthy snack preparation                                      | Kids Activity Pyramid                                                                         |
| Lesson 2      | Grain Group  
Food Safety: Kitchen safety tips  
Healthy snack preparation                                      | The importance of having energy to do the activities  
Aerobic activities                                             |
| Lesson 3      | Vegetable and Fruit groups.  
Food Safety: the importance of washing foods before eating  
Healthy snack preparation                                     | The importance of doing warm-up, cool down activities.  
Stretching.                                                    |
| Lesson 4      | Milk Group  
Meat and Beans  
Food Safety: Food storage  
Healthy snack preparation                                     | Moving and motion: muscle groups.                                                             |
| Lesson 5      | Importance of having breakfast  
Food Safety: Safety bloopers  
Healthy snack preparation                                     | Exercise to warm up or awaken the muscles                                                     |
| Lesson 6      | Healthy Snacks  
Food Safety: Packing snacks safely  
Healthy snack preparation                                     | Activity snacks                                                                               |
| Lesson 7      | Nutrition Fact Labels  
Food Safety: How to avoid germ spread  
Healthy snack preparation                                     | Aerobic activities  
Creating their own game                                         |
| Lesson 8      | Evaluation  
Healthy snack preparation                                      | Select the game that they liked the most.                                                    |

Researchers implemented their research program with children in the JIFF curriculum during a week-long summer camp during 3.5-hour sessions. On Monday, the JIFF pre-test survey was conducted to see what the children knew before starting the program and lesson one was done. On Tuesday, at the beginning of the day, 4-question open-ended surveys were conducted with the children to see what they had learned from the day before. This short survey was planned to be repeated at the end of the same day;
however, as there wasn’t have enough time to do it during the same day and the surveys were taken before starting the activities the following day. In some cases, that confused younger children because researchers were asking them to write about the day before while the paper they were writing on asked what they enjoyed the most about the program “today.” Lessons 2 and 3 were delivered on the same day.

On Wednesday, the 4-question survey was conducted at the beginning of the day to see what the children had learned from Lessons 2 and 3, and Lessons 4 and 5 were taught. On Thursday, the open-ended survey was conducted to see what the children had learned from the lessons taught the day before, and Lessons 6 and 7 were taught. On Friday, the JIFF post-test was conducted to see what the children had learned from the whole program.

A JIFF survey was used with the children at the beginning and at the of the program and 6 to 8 weeks after the programs ended to assess what the children knew already, what they learned from the program, and what they remembered over time. A useful improvement will be to modify the JIFF survey template so the lines aren’t so close together; sometimes children became confused by the formatting and neglected to answer on item. The boxes in which to mark a check are also very small and difficult for younger children to use, so they should be made larger.

At the end of each JIFF lesson, a snack suggestion activity is done with the participants. Researchers modified the original recipes or changed them altogether to make the snacks culturally compatible. The changes are synthesized in Table 2.
Table 3.2: New or modified snack recipes.

<table>
<thead>
<tr>
<th>Original Recipe</th>
<th>New or Modified Recipe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Almost a pyramid sundae</td>
<td>Grapes, strawberries, vanilla non-fat yogurt, cheerios.</td>
</tr>
<tr>
<td>Trial mix and crunchy bananas</td>
<td>Crunchy bananas: bananas, corn flakes, orange juice (100% not from concentrate), graham crackers.</td>
</tr>
<tr>
<td>Tortillas pinwheels/ graham cracker scram</td>
<td>Dry roasted peanuts, walnuts, mixed nuts, almonds, cashews, non-fat vanilla ice cream</td>
</tr>
<tr>
<td>Sandwiches</td>
<td>Trial Mix: Almonds, raisins, popcorn, walnuts, cashews, peanuts—all in a plastic Ziploc bag.</td>
</tr>
</tbody>
</table>

Program for the parents

Each of the JIFF lessons has a take-home newsletter that were translated to Spanish by the researcher and reviewed by the research staff to make the translation as neutral as possible. The family letters were designed to inform parents and other members of the family about the JIFF project. Based on these newsletters, the researcher designed a program for adults participating in the program.

Because of the small sample size, parents from Orangeburg County and Anderson County formed one experimental group. Research on parents and children was conducted simultaneously but held in separates rooms or buildings to reduce the threat of cross-contamination. Youth in the comparison group received the same intervention, while their parents receive no intervention other than the take-home newsletter. The nutrition and physical activity topics for the program for parents are synthesized in Table 3.
Table 3.3: Adults' weekly themes.

<table>
<thead>
<tr>
<th>Lessons Number</th>
<th>Theme Nutrition Activities</th>
<th>Theme Physical Activities</th>
</tr>
</thead>
</table>
| Lesson 1       | Evaluation  
My Pyramid  
Calories and portion size based on the age and physical activity level  
Mix up your food choices  
Portion sizes  
Food Safety: Hand-washing  
As your child grows: activities your 8-to 11 year old children might like to do Food preparation | Walking slowly for 5 minutes, moderately for 10, and 5 more slowly to cool down.  
Kid’s Activity Pyramid  
How to incorporate PA to your daily life (video)  
Tips to move more every day, everywhere |
| Lesson 2       | Grain Group  
Equivalents  
Comparison between whole/refined products  
Food Safety: Kitchen Safety Rules  
As your child grows: describes the characteristics of 8- and 9-years-old children and the activities they can do Food Preparation | Walking slowly for 5 minutes, moderately for 10 to 15, and 5 more slowly.  
Stretching activities  
FIT Principles: Frequency, Intensity and Time |
| Lesson 3       | Vegetable and Fruit groups  
Equivalents  
Marta Delicious Snacks (Video)  
Importance of eating fruits and vegetables  
Comparison of price within the same fruit: frozen, fresh or canned  
Food Safety: Washing fruits and vegetables before eating  
As your child grows: the importance of your kids’ developing communication skills Food Preparation | Stretching activities to do in family |
| Lesson 4       | Milk Group  
Equivalents  
Muscles and bonds  
Food Safety: Food storage  
As your child grows: Strategies to encourage your child not to watch TV and be more active Food Preparation | Walking slowly for 5 minutes, moderately for 15, and 5 more slowly to cool down.  
How to introduce physical activity in your family schedule (video)  
Tips on how to being active at home while doing your chores. |
| Lesson 5       | Meat and Beans  
Equivalents  
Food Safety: keeping food safe to eat  
As your child grows: strategies to turn off the TV and PC and stimulate them to be more active Food Preparation | Tips: go with your child to the park and have fun  
Activities that you can do to power-up the day |
| Lesson 6       | Importance of having breakfast  
Healthy Snacks | Walking slowly for 5 minutes, moderately for 20, and 5 more slowly |
Even though physical activities were planned to be done with the parents, one of the principal investigators of the research project decided not to do it, as two of the participants were pregnant; it was a very hot summer and he didn’t want to risk their health. Physical activities were not done in Orangeburg either, but for futures interventions, it will be important to incorporate physical activity classes.

The researcher who designed the program for adults prepared a file with folders divided by day. The file included the list of all activities, materials and handouts needed for each lesson. A good strategy to be incorporated in the future will be to ask the staff to check all the activities they did each day, as the lists have more activities than are needed.

Some of the recipes suggested in the take-home newsletters were modified or changed completely in order to make them culturally compatible. Table 4 synthesizes the modification or changes done to the original recipes from JIFF.

<table>
<thead>
<tr>
<th>Table 3.4: The recipes modifications.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Original recipe from JIFF</strong></td>
</tr>
<tr>
<td>Mini Bread Pizzas: English muffins or bagels to use as dough</td>
</tr>
<tr>
<td>Quick Tasty Bread Sticks</td>
</tr>
<tr>
<td>Fruit salad - The fruit was selected based on availability and freshness in the supermarket at the time of the intervention</td>
</tr>
</tbody>
</table>
For the parents, the pretest survey was administrated on Monday, before the program began. At the beginning of each day, an open-ended and closed questions survey was administrated to see what they had learned from the lesson taught the day before. On Friday, a posttest was administrated and focus group interviews were conducted with parents in both groups (Anderson and Orangeburg) to explore their general opinions about the program’s content and the take-home newsletters. Finally, 6 to 8 weeks after the program ended, a posttest survey was administered.

In Anderson, the research staff forgot to conduct the posttest survey with the participants, so the researcher in charge of the project did the survey by phone two days later. Other research staff forgot to do one of the daily qualitative surveys was also accidentally omitted, so these data was reported as missing data. For future interventions, it will be important to have a check list so the researcher in charge of the investigation can check whether the staff did all the evaluations that were planned for that day.
Conclusions

Several strategies were used in the process of developing and implementing a Nutrition and Physical Activity Program for Hispanic youth and their parents. Table 5 synthesizes and describes these strategies.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Strategy used</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>In the Recruitment process</strong></td>
<td>Contact key people within the community whom potential participants can trust</td>
<td>Promising approach to be used</td>
</tr>
<tr>
<td></td>
<td>Churches as place to find participants</td>
<td>Promising approach to be used</td>
</tr>
<tr>
<td></td>
<td>Several visit to the participants in Orangeburg</td>
<td>Promising approach to be used</td>
</tr>
<tr>
<td></td>
<td>Changing the date of the program because of lack of participants</td>
<td>Need to be tested in future interventions as two families that were confirmed since the beginning couldn’t come on the new dates.</td>
</tr>
<tr>
<td></td>
<td>Working relationship with 4-H Extension Agents</td>
<td>Promising approach to be used</td>
</tr>
<tr>
<td></td>
<td>Using a school to conduct the program only with children</td>
<td>Promising approach to be used</td>
</tr>
<tr>
<td></td>
<td>Using the radio to promote the program</td>
<td>Need to be tested in future interventions</td>
</tr>
<tr>
<td></td>
<td>Usage of flyers to promote the program</td>
<td>Promising approach to be used</td>
</tr>
<tr>
<td></td>
<td>Using community facilities to implement the programs</td>
<td>Promising approach to be used</td>
</tr>
<tr>
<td></td>
<td>Using Extension Offices to conduct programs</td>
<td>Promising approach to be used</td>
</tr>
<tr>
<td><strong>Jump Into Food and Fitness Curriculum</strong></td>
<td>Changing or modifying snack suggestions to make the program culturally compatible</td>
<td>Promising approach to be used</td>
</tr>
<tr>
<td></td>
<td>Translating the Take-Home</td>
<td>Promising approach to be used</td>
</tr>
<tr>
<td>NEWSLETTERS INTO SPANISH</td>
<td>PROMISING APPROACH TO BE USED</td>
<td></td>
</tr>
<tr>
<td>----------------------------------------------------------------------------------------</td>
<td>-------------------------------</td>
<td></td>
</tr>
<tr>
<td>Having the translation reviewed by different Spanish speakers to make it as neutral as possible</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Designing the program for the parents based on the newsletters</td>
<td>Promising approach to be used</td>
<td></td>
</tr>
<tr>
<td>Changing the recipes suggested on the newsletters to make them more culturally compatible</td>
<td>Promising approach to be used</td>
<td></td>
</tr>
<tr>
<td>Changing JIFF Survey template</td>
<td>Promising approach to be used - in the future (not implemented in this program)</td>
<td></td>
</tr>
<tr>
<td>Having all the activities, handouts and materials for the parent program in a file keeper</td>
<td>Promising approach to be used</td>
<td></td>
</tr>
<tr>
<td>Having a list with all the activities to be done with the parents</td>
<td>Promising approach to be used</td>
<td></td>
</tr>
<tr>
<td>Having a list to check all the activities done by the researcher who works with the parents</td>
<td>Promising approach to be used to be done in the future (not implemented in this program)</td>
<td></td>
</tr>
<tr>
<td>Having a list to check if the evaluations were taken each day with the parents and children</td>
<td>Promising approach to be used - to be done in the future (not implemented in this program)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>IMPLEMENTATION OF THE PROGRAMS</th>
<th>PROMISING APPROACH TO BE USED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Designing the qualitative surveys to use with the children to assess what they learned from the lessons</td>
<td>Promising approach to be used; however, if it is not taken the same day of the lesson, change the dates in the surveys to avoid confusing participants.</td>
</tr>
<tr>
<td>Designing demographic survey with parents</td>
<td>Promising approach to be used</td>
</tr>
<tr>
<td>Designing a pretest, posttest and post-delayed test for the parents</td>
<td>Promising approach to be used</td>
</tr>
<tr>
<td>Having the parents do physical activity</td>
<td>Promising approach to be used in the future (not implemented in this program)</td>
</tr>
</tbody>
</table>
Nutrition and physical activity programs for the Hispanic population are needed. They can be more effective if nutrition educators follow some of these recommendations: recruitment through trusted individuals, building a relationship with potential participants, timing of the intervention, presenting and explaining to the parents the program and other literature in Spanish and finally making the program culturally compatible by assessing participant needs and designing the program to meet those needs in a culturally appropriate and acceptable manner.
References


APPENDICES
Appendix A

Parental Consent Form (English and Spanish version)

Clemson University

Jump Into Food and Fitness Program

Description of the research and your participation

Your child is invited to participate in a research study conducted by Katherine Cason, Principal Investigator, Sergio Nieto Montenegro, Co-Investigator, and Mercedes Rossi, Graduate Student under the direction of Dr. Cason. The purpose of this research is to look at the knowledge and behaviors that children gain in the Jump Into Food and Fitness educational program. Lessons learned from the program will be used to help children improve food choices. Approximately 75 children will participate in this program and study.

Your child’s participation will involve receiving educational lessons in nutrition and fitness. The educational program will occur during a summer camp where your children will attend Monday to Friday from 9:00 AM to 12:30 PM. Your children will be given lessons on the importance of nutrition for health, fitness, and healthy snacks.

The amount of time required for your child’s participation will be 3.5 hours per day for a week to participate in the educational lessons. We will ask your child to answer a few questions before starting the program, at the end of the program and again between six to eight weeks after the program is over in order to see if the program has made a difference in what your child knows about nutrition. This survey will take approximately 10 minutes.

Risks and discomforts

There are no known risks associated with this research.

Potential benefits

The specific benefits to the children participating in this study are an increase in nutrition knowledge and awareness. We also hope to learn more about how children learn nutrition so that we can improve our programs in the future. Participation in this study is voluntary. You may refuse to allow your child to participate or withdraw your child from the study at any time. You will receive a $50 gas/grocery store card to help you cover your transportation costs.
Protection of confidentiality

The records of your child’s participation are confidential. The investigator will maintain your child's information, and this information may be maintained on a computer. Study information or data may be examined by the Institutional Review Board of Clemson University and various federal regulatory agencies. This study may result in scientific presentations and publications, however your child’s identity will not be revealed in any publications that might result from this study.

Voluntary participation

Participation in this research study is voluntary. You may refuse to allow your child to participate or withdraw your child from the study at any time.

Contact information

If you have any questions or concerns about this study or if any problems arise, please contact Katherine L. Cason at 864-656-0539 or Sergio Nieto-Montenegro at 864-656-0587. If you have any questions or concerns about your child’s rights as a research participant, please contact the Clemson University Office of Research Compliance at 864.656.6460.

Consent

I have read this parental permission form and have been given the opportunity to ask questions. I give my permission for my child to participate in this study.

Parent’s signature: ___________________________ Date: ______________
Child’s Name: __________________________________________

A copy of this parental permission form should be given to you.
Descripción de la Investigación y su Participación

Su hijo está siendo invitado a participar en un proyecto de investigación conducido por Katherine Cason, investigadora principal, Sergio Nieto Montenegro, co-investigador, y María Mercedes Rossi, estudiante de postgrado bajo la dirección de Katherine Cason. El propósito de este proyecto es observar el conocimiento y el comportamiento que los niños van a desarrollar dentro del programa educativo Acercándose a la Alimentación y Educación Física. Las lecciones aprendidas a través del programa serán utilizadas para ayudar a que los niños mejoren sus elecciones alimenticias incrementando el consumo diario de las mismas. Aproximadamente 75 niños participarán en este proyecto.

La participación de su hijo involucrará recibir lecciones educativas en nutrición y en educación física. El programa educativo se llevará a cabo durante un pequeño campamento de verano al que su hijo o hija asistirá durante una semana de lunes a viernes desde las 9:00 a.m. hasta las 12:30 p.m. Las lecciones que su hijo o hija recibirán serán acerca de la importancia de la nutrición para la salud, la educación física y los bocadillos saludables.

La cantidad de tiempo que se requiere la participación de su hijo es de 3 horas y media por día durante una semana para participar en las lecciones educativas. Le pediremos a su hijo o hija que conteste algunas preguntas antes de comenzar el programa y al finalizar el mismo; y nuevamente 6-8 semanas después del último cuestionario, esto para evaluar si el programa ha hecho diferencia en cuanto a lo que su hijo conoce sobre nutrición. Contestar el cuestionario llevará aproximadamente 10 minutos.

Riesgos y Malestares

No se conocen riesgos asociados con esta investigación

Beneficios Potenciales

El beneficio específico por la participación de los niños en este proyecto es el incrementar el conocimiento y la toma de conciencia acerca del mismo. Esperamos poder aprender más acerca de cómo los niños aprenden nutrición y de este modo, poder mejorar nuestros programas en el futuro. La participación en este proyecto es voluntaria. Usted puede negarse a que su hijo o hija participen del proyecto o lo abandonen en cualquier momento. Usted recibirá una tarjeta de regalo con un valor de $50 y será posible utilizarla en un supermercado, para ayudarlo a cubrir los gastos de transporte.
Confidencialidad

Los archivos con la participación de su hijo son confidenciales. El investigador guardará la información de su hijo, y la información será almacenada en su computadora. La información del proyecto o los datos pudieran ser eventualmente examinados por el Consejo Revisor Institucional de La Universidad de Clemson y por varias Agencias Federales de Regulación. Este proyecto pudiera ser parte de presentaciones y publicaciones científicas; sin embargo la identidad de su hijo no será revelada en ninguna publicación en la que los resultados de esta investigación pudieran aparecer.

Participación Voluntaria

La participación en este proyecto de investigación es voluntaria. Usted puede rehusar que su hijo participe o a que se retire del proyecto en cualquier momento. Su hijo no será penalizado de ninguna manera si usted decide que abandone este proyecto o si usted no permite su participación.

Información para Contactarnos

Si usted tuviera alguna pregunta o duda acerca de este proyecto o si surgiese algún tipo de problema, por favor comuníquese con Katherine L. Cason al siguiente teléfono: (864) 656-0539 o con Sergio Nieto-Montenegro al (864) 656-0587. Si usted tiene alguna pregunta o duda sobre los derechos de su hijo como participante de una investigación, por favor comuníquese a la oficina del comité revisor institucional en la Universidad de Clemson al siguiente teléfono: (864) 656-6460.

Consentimiento

He leído este formulario para autorizar la participación mi hijo y tuve la oportunidad de hacer preguntas a los investigadores. Autorizo a mi hijo a participar en este proyecto de investigación.

Firma de los padres: _________________________ Fecha________________

Nombre y Apellido del niño o niña____________________________________

Una copia de este formulario le será entregado a usted.
Jump Into Food and Fitness Program

You are being invited to participate in a research study. Below you will find answers to some of the questions that you may have.

What is it for?
- This research will help to look at what students learn in the Jump Into Food and Fitness Program that can help them improve food choices.

Why me?
- You are being asked to participate in this research because we would like to see the impact of this program within the Hispanic community.

What Will I Have to Do?
- The research includes listening and participating in a summer minicamp to learn more about the importance of nutrition, physical fitness and healthy snacks.
- You will be asked to fill in a short survey at the beginning of the program, at the end and again 6 to 8 weeks after the program has ended. Filling in the survey will be easy. You will be asked to write down your answers to a few questions which will take only a few minutes.

Did My Parents Say It Was Okay?
- Your parent has already signed a consent form for you to participate in the survey.

Who Will Be Helped By This Research?
- We hope that your knowledge of nutrition will increase by the end of this research. Your participation will help us to improve nutrition programs to students.

What If I Want to Stop? Will I Get In Trouble?
- Your participation is voluntary. This means that you may decide not to participate in the program without any penalty to you whatsoever. You may decide to stop participating at any time.

By signing below, I am saying that I have read this form and have asked any questions that I may have. All of my questions have been answered so that I understand what I am...
being asked to do. By signing, I am saying that I am willing and would like to participate in this study. I also have received a copy of this form to keep.

_____________________________     ___________________
Signature of Child/Student        Date

Programa Educativo “Acercándose a la Alimentación y Educación Física” –
Jump into Food and Fitness Program

Estás siendo invitado a participar en un estudio de investigación. Abajo encontrarás algunas respuestas a preguntas que quizás puedas llegar a tener.

¿Para qué es?
• Este estudio nos ayudará a entender cómo los estudiantes aprenden dentro del programa educativo Acercándose a la Alimentación y Educación Física y cómo puede ayudarles a mejorar su elección en las comidas.

¿Por qué yo?
• Se te está preguntando si quieres participar en esta investigación porque nos gustaría ver cuál es el impacto del programa dentro de la comunidad Hispánica.

¿Qué es lo que tengo que hacer?
• La investigación incluye que escuches y participes en un mini campamento de verano, aprender más acerca del a importancia en nutrición, educación física y bocadillos saludables.
• Se te pedirá que completes un breve cuestionario al comienzo del programa, al finalizar el mismo; y un tercero entre 6 y 8 semanas después. Completarlo será fácil. Se te pedirá que escribas las respuestas a algunas preguntas y ello te llevará solo unos minutos.

¿Dijeron mis padres que estaba bien que participe?
• Tus padres firmaron previamente un formulario de consentimiento de que tú participes en esta investigación.

¿Quién será ayudado con esta investigación?
• Esperamos que tu conocimiento en nutrición incremente hacia el final de la investigación. Tu participación nos ayudará a mejorar los programas educativos.
¿Qué sucede si deseo no continuar? ¿Puedo estar en problemas por ello?

- Tu participación es voluntaria. Esto significa que puedes decidir no participar en el programa sin ningún tipo de penalidad por ello. Tú puedes decidir que quieres dejar de participar, y lo puedes hacer en cualquier momento.

Firmando abajo, estoy diciendo que he leído este formulario y he hecho todas las preguntas que pudiera tener. Todas mis preguntas han sido respondidas, por lo tanto, entiendo que es lo que se me pide que haga. Firmando, estoy diciendo que tengo el deseo y quiero participar en este estudio. He recibido una copia de este formulario para mí que debo guardar.

________________________________ _____________________
Firma del niño/a- estudiante                                                    Fecha
Appendix C

Children’s surveys

**JIFF Sound Off Survey**

| Your Age: __________________ | Office Use Only |
| Your Grade: __________________ | Date: __________________ |
| Check one: ☐ Boy ☐ Girl | Site: __________________ |
| | Leader: __________________ |
| | County: __________________ |
| | Check one: ☐ Pre-survey version ☐ Post-survey version |

Read each question below and mark an “X” in the box of the column that best describes you and your actions.

<table>
<thead>
<tr>
<th>Question</th>
<th>Hardly Ever</th>
<th>Sometimes</th>
<th>Almost Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I wash my hands before preparing food or eating.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. I read the nutrition information on food labels.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. I eat breakfast every day.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. I choose healthy snacks when I have the choice.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. I eat vegetables every day.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. I eat fruits every day (or drink real fruit juice).</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. I like to try new foods.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. I think about whether foods are good for me when I choose what I eat.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. I drink milk or eat cheese at least two times a day.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. I do moderate physical activities like walking to school, helping around the house, raking leaves, using the stairs or walking the dog.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. I do stretching exercises.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. I work on getting stronger by doing exercises like rope climbing, tumbling, gymnastics, karate, push-ups, curl-ups or playing on the monkey bars.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. I am physically active until I sweat.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. I do physical activities with my family or friends.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. I am on a sports team or take classes like dance, yoga, judo or karate.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. When I watch TV, I exercise or dance during the commercials.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17. I use a jump rope for stretching or jumping.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18. I enjoy being physically active.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
19. Please circle the choice that you believe is the best answer.

MyPyramid for Kids tells us . . .

A. The cost of different foods.
B. How much to eat of different kinds of foods.
C. How to prepare foods we eat.

20. Draw a line to match the muscle group to the correct position of the body.

<table>
<thead>
<tr>
<th>Muscles</th>
<th>Body Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abdominals (the dominator muscles)</td>
<td>Back part of upper arm</td>
</tr>
<tr>
<td>Trapezius (the trap muscles)</td>
<td>Shoulders and back</td>
</tr>
<tr>
<td>Deltoids (the airplane muscles)</td>
<td>Stomach</td>
</tr>
<tr>
<td>Biceps (the bicycle muscles)</td>
<td>Chest</td>
</tr>
<tr>
<td>Triceps (the tricycle muscles)</td>
<td>Inner part of upper arm</td>
</tr>
<tr>
<td>Pectorals (the King Kong muscles)</td>
<td>Arms and shoulders</td>
</tr>
</tbody>
</table>

21. Draw a line to match each food group to the correct main nutrient it provides.

<table>
<thead>
<tr>
<th>Food Groups</th>
<th>Main Nutrient(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grain Group</td>
<td>Protein</td>
</tr>
<tr>
<td>Vegetable Group</td>
<td>Calcium</td>
</tr>
<tr>
<td>Fruit Group</td>
<td>Vitamins A and C</td>
</tr>
<tr>
<td>Milk Group</td>
<td>Carbohydrates</td>
</tr>
<tr>
<td>Meat and Beans Group</td>
<td>Vitamins A and C</td>
</tr>
</tbody>
</table>
JIFF 1 Monday

Please answer the following questions:

1. What did you learn about the MyPyramid for kids and the Kid’s Activity that can help you to be healthy?
   
   ____________________________________________________
   ____________________________________________________
   ____________________________________________________
   ____________________________________________________
   ____________________________________________________

2. What are the similarities and the differences between the MyPyramid for Kids and the Kid’s Activity Pyramid?
   
   ____________________________________________________
   ____________________________________________________
   ____________________________________________________
   ____________________________________________________
   ____________________________________________________

3. What did you learn today that you want to share with an adult you know?
   
   ____________________________________________________
   ____________________________________________________
   ____________________________________________________
   ____________________________________________________
   ____________________________________________________

4. What new activities and the foods that we talk about today might you try at home?
   
   ____________________________________________________
   ____________________________________________________
   ____________________________________________________
   ____________________________________________________
   ____________________________________________________
JIFF 2 and 3 Tuesday

Please answer the following questions:

1. What did you enjoy learning about the most in the lessons that we did today?

____________________________________________________________________
____________________________________________________________________
____________________________________________________________________

2. What information did you learn about foods grains?

____________________________________________________________________
____________________________________________________________________
____________________________________________________________________

3. What new information did you learn about fruits and vegetables?

____________________________________________________________________
____________________________________________________________________
____________________________________________________________________

4. Why it is important to follow safety rules in the kitchen?

____________________________________________________________________
____________________________________________________________________
____________________________________________________________________


JIFF 4 and 5 Wednesday

Please answer the following questions:

1. What did you enjoy learning the most in these lessons?
   ______________________________________________________________________
   ______________________________________________________________________
   ______________________________________________________________________
   ______________________________________________________________________
   ______________________________________________________________________

2. What foods you should eat and what activities can you do to help build strong bones and muscles?
   ______________________________________________________________________
   ______________________________________________________________________
   ______________________________________________________________________
   ______________________________________________________________________
   ______________________________________________________________________

3. What are some breakfast safety bloopers to avoid?
   ______________________________________________________________________
   ______________________________________________________________________
   ______________________________________________________________________
   ______________________________________________________________________
   ______________________________________________________________________

4. Why is it a good idea to start the day by eating breakfast?
   ______________________________________________________________________
   ______________________________________________________________________
   ______________________________________________________________________
   ______________________________________________________________________
   ______________________________________________________________________
Please answer the following questions:

1. What did you enjoy about the most learning from the lessons that we did today?
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

2. What kind of activity snack can you do with your friends and family?
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

3. What did you learn from the reading the Nutrition Fact labels?
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

4. Why it is important to keep snacks colds?
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
Appendix D

Surveys for parents (English and Spanish versions)

Demographic Information:

Code: __________________

1. Your date of birth (MM/DD/YY)                                  ______/_______/________

2. Phone number: _________________________________________________

3. Sex: Male / Female: (circle one)

4. Marital status: (circle one)
   01) Single
   02) Married
   03) Divorce
   04) Widow
   05) Other________________________________________________________

5. How many children do you have? _________________________________

6. What are their ages? ___________________________________________

7. Circle the age of all of your child/children that is/are participating in the JIFF program (Circle one)
   01) 8 years old
   02) 9 years old
   03) 10 years old
   04) 11 years old
   05) Other: _____________________________________________________

8. Country of Origin: (Circle one)
   01) Mexico
   02) Colombia
   03) Cuba
   04) Dominican Republic
   06) Puerto Rico
   07) Honduras
   08) Other : ______________________________________________________
9. How would you identify yourself?

01) Puerto Rican
02) Mexican
03) Dominican
04) Cuban
05) Colombian
06) Honduran
07) Hispanic
08) Latino
09) Other:_________________________________________________________

10. County of Residence: (Circle one)

01) Oconee
02) Anderson
03) Pickens
04) Orangeburg
05) Bamberg
06) Calhoun
07) Barnwell
08) Other:_________________________________________________________

11. How long have you lived in the US?

____ Years       ____ Months

12. How long have you lived in South Carolina?

____ Years       ____ Months

13. Employment Status: (Circle one)

01) Employed (full-time)
02) Employed (part-time)
03) Unemployed
04) Retired
05) Disabled or unable to work
06) Homemaker (stay at home mother)

If you circle 01 or 02) please answer the following question

14. Could you please describe your job?
15. Education Level: (Circle one)
   01) Primary Completed
   02) High School graduate or GED
   03) Post-High School training completed (e.g., Associate’s degree, Diploma, Certificate)
   04) College training completed (4-year Bachelor degree)
   05) Graduate degree completed
   06) Other:_________________________________________________________

16. Household Income per week:__________________________________________
Información Demográfica

1. Fecha de Nacimiento (MM/DD/AA) _____/_____/_____

2. Número de teléfono: ____________________________________________

3. Sexo: Masculino/ Femenino (encierre en un círculo)

4. Estado Civil (encierre en un círculo)
   01) Soltera
   02) Casada
   03) Divorciada
   04) Viuda
   05) Otro: _____________________________________________________

5. Cuantos hijos tiene? __________________________________________

6. Que edades tienen? ____________________________________________

7. Encierre en un círculo la edad de todos sus hijos que participen del programa educativo JIFF.
   01) 8 años
   02) 9 años
   03) 10 años
   04) 11 años
   05) Otro: _____________________________________________________

8. País de origen: (Encierre en un círculo el que corresponda)
   01) México
   02) Colombia
   03) Cuba
   04) República Dominicana
   05) Puerto Rico
   06) Honduras
   07) Otro: _____________________________________________________

9. Cómo se identifica usted? (Encierre en un círculo el/los que corresponde/n)
   01) Mexicana
   02) Colombiana
   03) Cubana
   04) Dominicana
   05) Puertorriqueña
   06) Hondureña
07) Otro:________________________________________________________

10. Condado en el que vive:
   01) Oconee
   02) Anderson
   03) Pickens
   04) Orangeburg
   05) Bamberg
   06) Calhoun
   07) Barnwell
   08) Other:_______________________________________________

11. Cuanto tiempo ha vivido en los Estados Unidos?

   ___________ Años                  ____________Meses

12. Hace cuanto tiempo vive en Carolina del Sur?

   ___________ Años                  ____________Meses

13. Empleo: (Marque el que corresponda)
   01) Empleado (tiempo completo)
   02) Empleado (medio tiempo)
   03) Desempleado
   04) Retirado/Jubilado
   05) Incapacitado para trabajar
   06) Ama de casa

Si ha contestado 01) o 02) por favor conteste la siguiente pregunta:

14. Puede describir su empleo?

   ______________________________________________________________________
   ______________________________________________________________________

15. Educación:
   01) Primaria Completa
   02) Secundaria Completa
   03) Carrera Técnicas o Terciarias
   04) Carrera Universitaria
   05) Postgrado
   06) Otro___________________________________________________________

16. Salario semanal:____________________________________________________
Questionnaire:

Code:________________________________________________________________

Pretest/Posttest/Post-delayed test

1. Are you familiar with MyPyramid?
   a. Not at all
   b. A little bit
   c. Somewhat
   d. A lot.

2. Does what you eat affect your health?
   a. Not at all
   b. A little bit
   c. Somewhat
   d. A lot

3. How likely are your children to become overweight?
   a. Not at all
   b. A little bit
   c. Somewhat
   d. A lot

4. Do you believe that joining this program will help your children avoid becoming overweight?
   a. Not at all
   b. A little bit
   c. Somewhat
   d. A lot

5. Do you believe doing physical activity and learning nutrition will help your children have a healthy weight?
   a. Not at all
   b. A little bit
   c. Somewhat
   d. A lot

6. Do you think it is important for children to be physically active every day?
   a. Not at all
   b. A little bit
   c. Somewhat
   d. A lot
7. How long should children participate in moderate activity each day?  
   a. 10 minutes  
   b. 30 minutes  
   c. 60 minutes  
   d. Don’t know

8. Do you believe doing physical activities as a family can be fun to do?  
   a. Not at all  
   b. A little bit  
   c. Somewhat  
   d. A lot

9. How many fruits and vegetables do you eat in a day?  
   a. 1-2  
   b. 3-4  
   c. 5 or more  
   d. Don’t know

10. How often do you eat low-fat foods such as: vegetables, low-fat or reduced-fat dairy products or lean meats?  
    a. Never  
    b. Seldom  
    c. Some times  
    d. Most of the times  
    e. Almost always

11. Do you trim the fat on beef or pork and remove the skin from chicken before cooking?  
    a. Never  
    b. Seldom  
    c. Some times  
    d. Most of the times  
    e. Almost always

12. How often do you use the “Nutrition Facts” on the food label to make food choices?  
    a. Never  
    b. Seldom  
    c. Some times  
    d. Most of the times  
    e. Almost always

13. How often do your children eat something in the morning within 2 hours of waking up?
14. This question is about meat and dairy foods. How often do you let this foods sit out for more than two hours?
   a. Never
   b. Seldom
   c. Some times
   d. Most of the times
   e. Almost always

15. How often do you thaw frozen foods at room temperature?
   a. Never
   b. Seldom
   c. Some times
   d. Most of the times
   e. Almost always
Pretest/posttest/post-delayed test

1) ¿Está familiarizado con la Pirámide Alimentaria?
   a) No, nada
   b) Un poquito
   c) Algo
   d) Mucho

2) ¿Piensa que lo que come puede afectar su salud?
   a) No, nada
   b) Un poquito
   c) Algo
   d) Mucho

3) ¿Qué tan probable es que sus hijos lleguen a tener sobrepeso?
   a) No, nada
   b) Un poquito
   c) Algo
   d) Mucho

4) ¿Piensa que participar en este programa va a ayudar a su hijo a prevenir el sobrepeso?
   a) No, nada
   b) Un poquito
   c) Algo
   d) Mucho

5) ¿Cree que hacer actividad física y aprender sobre nutrición puede ayudar a sus hijos a tener un peso saludable?
   a) No, nada
   b) Un poquito
   c) Algo
   d) Mucho

6) ¿Piensa que es importante que sus hijos estén activos todos los días?
   a) No, nada
   b) Un poquito
   c) Algo
   d) Mucho

7) ¿Cuánto tiempo piensa que sus niños deberían hacer actividad física moderada por día?
a) 10 minutos
b) 30 minutos
c) 60 minutos
d) No sabe

8) ¿Cree que hacer actividad física en familia puede ser algo divertido de hacer?
   a) No, en lo absoluto
   b) Un poco
   c) Casi nada
   d) Mucho

9) ¿Cuántas frutas y verduras come por día?
   a) 1-2
   b) 3-4
   c) 5 o más
   d) No sabe

10) ¿Qué tan seguido come alimentos bajos en grasas como los vegetales, productos lácteos bajos en grasas o carnes magras?
    a) Nunca
    b) Rara vez
    c) Algunas veces
    d) La mayoría de las veces

11) ¿Le quita la grasa a la carne o al cerdo antes de cocinarlos, o le quita la piel al pollo antes de cocinarlo?
    a) Nunca
    b) Rara vez
    c) Algunas veces
    d) La mayoría de las veces

12) ¿Qué tan seguido utiliza la información nutricional de las etiquetas de los productos alimenticios para elegir los alimentos?
    a) Nunca
    b) Rara vez
    c) Algunas veces
    d) La mayoría de las veces

13) ¿Qué tan seguido comen sus hijos algo por la mañana durante o durante las 2 primeras horas de haberse levantado?
    a) Nunca
    b) Rara vez
    c) Algunas veces
    d) La mayoría de las veces
14) Esta pregunta es sobre carnes y productos lacteos. ¿Qué tan seguido deja estos tipos de alimentos fuera del refrigerador por más de dos horas?
   a) Nunca
   b) Rara vez
   c) Algunas veces
   d) La mayoría de las veces

15) ¿Qué tan seguido descongela la comida dejándola a temperatura ambiente?
   a) Nunca
   b) Rara vez
   c) Algunas veces
   d) La mayoría de las veces
Check the learning at the beginning of the following day:

**On Monday: (Based on lesson 1)**

Code: ____________________________________________________________

Date: __________________________________________________________________

1. Name the foods groups of MyPyramid.

2. What does the person on the side of the MyPyramid represent?

3. Why should we eat only a small amount of food from the “oils” food group?

4. How often should we do moderate physical activities like walking, raking leaves, using stairs, dancing, bicycling, or walking the dog?
   a. Every Day
   b. Several times a week
   c. Once a month
   d. Don’t know

5. Which of the following is an example of being physically active?
   a. Taking a nap
   b. Riding a bike
   c. Watching TV
   d. Riding in the car.

6. List 3 times when you should wash your hands
On Tuesday: (Based on lessons 2-3)

Code: ____________________________________________________________
Date: ____________________________________________________________

1. Tell 1-2 reasons why it is important to eat a lot of foods from the grains group.

2. List 2 things you could do to help your child eat more grains.

3. Tell 2-3 reasons why it is important to eat foods from the vegetables group and from the fruit group.

4. List 2 things you can do to help your child can eat more fruits and vegetables.

5. Which of the following is a type of aerobic exercise?
   a. Stretching
   b. Lifting weights
   c. Running
   d. Doing push-ups.

6. Name 2-3 situations where you can use the relaxation stretching

7. List 2-3 reasons why it is important to follow safety rules in the kitchen

8. List 2-3 reasons why is important to wash fruit and vegetables before eating them.
On Wednesday: (Based on lessons 4-5)

Code: ____________________________________________________________
Date: ____________________________________________________________

1. Tell 1-2 reasons why it is important to eat foods from the Milk Group.

2. List 2 things you could do to help your child drink more milk and eat more dairy foods.

3. Tell 1-2 reasons why it is important to eat foods from the Meat and Beans Group.

4. List 2 things you could do to help your child can eat more lean meats and beans?

5. What kind of exercise I am doing when I pick up a heavy shovel while working in the garden?
   a. A mental exercise
   b. An anaerobic exercise
   c. An aerobic exercise
   d. It is not any type of exercise at all.

6. What kind of physical activity or activities might you do to power up your day?

7. You are hungry. There are some chicken and rice leftovers in the refrigerator that have been there for over a week. Should you:
   a. Eat it
   b. Taste it then decide
   c. Put it back in the refrigerator
   d. Throw it away
   e. Don’t know

8. You are going to fix chicken for dinner tonight, but the chicken is still frozen. Are you going to let the chicken thaw:
   a. on the counter
   b. in the sink
   c. in the refrigerator
   d. don’t know
On Thursday: (Based on lessons 6-7)

Code: ____________________________________________
Date: ____________________________________________

1. What do your children usually eat for snacks?

2. How do the snacks fit into MyPyramid?

3. What do your children usually eat for breakfast?

4. How do the foods fit into MyPyramid?

5. Name 2 fun physical activities you could do inside on a rainy day.

6. While your child is playing or doing a sport, which are some good rules to follow to keep him safe?
   a. Make sure your child wears fancy shoes for the sport or activity.
   b. Make sure your child wears the right shoes for the sport or activity.
   c. Make sure your child wears the basic safety gear or protective clothing for the activity.
   d. Only answers b and c are correct.

7. When making your own snacks at home, what are some good rules to remember?
   e. Wash hands before starting
   f. Handle hot pans and sharp knives carefully
   g. Keep it healthy
   h. All of above
Revisión del día lunes (Basado en la lección 1)

Código: ________________________________________________________________
Fecha: _________________________________________________________________

1. Nombre los grupos alimenticios que hay en Mi Pirámide.
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________

2. ¿Qué representa la persona que está al costado de la Pirámide?
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________

3. ¿Por qué debemos comer muy poco de los alimentos del grupo de los aceites?
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________

4. ¿Qué tan seguido debemos hacer actividad física moderada como por ejemplo: caminar, rastrillar hojas, usar las escaleras, bailar, andar en bicicleta o salir a caminar con su perro?
   a. Todos los días
   b. Varias veces por semana
   c. Una vez al mes
   d. No sabe

5. ¿Cuáles de todos estos es un ejemplo de “estar físicamente activo”?
   a. Dormir la siesta
   b. Andar en bicicleta
   c. Mirar televisión
   d. Andar en carro.

6. Liste 3 momentos en los que debería lavarse las manos
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________

124
Revisión del día martes (basado en las lecciones 2 y 3)

Código: ________________________________________________________________
Fecha: _________________________________________________________________

1. Diga 1-2 razones acerca de por qué es importante comer muchos alimentos pertenecientes al grupo de los granos.

_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________

2. Enumere 2 cosas que puede hacer usted para ayudar a que su hijo coma más alimentos a base de granos.

_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________

3. Diga 2-3 razones acerca de por qué es importante comer alimentos del grupo de las verduras y las frutas.

_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________

4. Enumere dos cosas que puede hacer para ayudar a su hijo a que coma más frutas y verduras.

_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________

5. ¿Cuál de estos ejercicios es aeróbico?
   a. Estiramientos
   b. Levantar pesas
   c. Correr
   d. Hace lagartijas

6. Nombre 2 situaciones en las que usted puede hacer ejercicios de estiramientos y relajación.

_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________

7. Enumere 2 razones por las cuales es importante seguir reglas de seguridad en la cocina.
8. Diga 2-3 razones por las cuales es importante lavar a las frutas y verduras antes de comerlas
Revisión del Día Miércoles (basado en las lecciones 4 y 5)

Código: ________________________________________________________________
Fecha: _________________________________________________________________

1. Diga 2 razones de por qué es importante comer alimentos del grupo de los lácteos.
   _____________________________________________________________________
   _____________________________________________________________________
   _____________________________________________________________________

2. Enumere 2 cosas que puede hacer para que sus hijos tomen más leche y consuman más alimentos lácteos.
   _____________________________________________________________________
   _____________________________________________________________________
   _____________________________________________________________________

3. Diga 2-3 razones por las cuales es importante comer alimentos del grupo de las carnes y los frijoles.
   _____________________________________________________________________
   _____________________________________________________________________
   _____________________________________________________________________

4. Diga 2 cosas que puede hacer para ayudar a su hijo a comer más alimentos del grupo de las carnes y los frijoles.
   _____________________________________________________________________
   _____________________________________________________________________
   _____________________________________________________________________

5. ¿Qué tipo de ejercicio estoy haciendo cuando levanto una pala pesada mientras estoy trabajando en el jardín?
   a. Ejercicio mental.
   b. Ejercicio anaeróbico
   c. Ejercicio aeróbico
   d. No es un tipo de ejercicio

6. ¿Qué tipo de actividad física debe hacer para comenzar el día con más energía y vitalidad?
   _____________________________________________________________________
   _____________________________________________________________________
   _____________________________________________________________________

7. Si usted tiene hambre y quedaron sobras de pollo y arroz en el refrigerador desde hace más de una semana. ¿Qué debería hacer?
8. Usted está por cocinar pollo para la comida, pero el pollo todavía está congelado. ¿Qué es lo que va a hacer para descongelar el pollo?
   a. Descongelarlo en el gabinete
   b. Descongelarlo en el fregadero de la cocina.
   c. Descongelarlo en el refrigerador
   d. No sabe.

   a. Comérselo.
   b. Probarlo y luego decidir.
   c. Volverlo a colocar en el refrigerador
   d. Tirarlo a la basura.
   e. No sabe.
Revisión del día jueves (basado en las lecciones 6 y 7)

Código: ________________________________________________________________
Fecha: _________________________________________________________________

8. ¿Qué es lo que sus niños comen generalmente como snack o bocadillo?
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________  

9. ¿Cómo están incluidos los snacks que prepara dentro de Mi Pirámide?
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________  

10. ¿Qué es lo que usualmente comen sus hijos en el desayuno?
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________  

11. ¿Cómo se ubican los alimentos que come en el desayuno dentro de Mi Pirámide?
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________  

12. Nombre 2 actividades físicas que puede hacer un día lluvioso dentro de su casa.
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________  

13. Mientras su hijo esta haciendo un deporte hay algunas reglas que debe seguir para

   protegerlo y que este seguro

   a. Asegúrese de que su hijo calce el calzado de moda para hacer deportes o
      actividad física.
   b. Asegúrese de que su hijo calce el calzado adecuado para hacer deportes o
      actividad física.
   c. Asegúrese que su hijo utilice los protectores de seguridad y la ropa
      adecuada para hacer deportes o actividad física.
   d. b y c son las dos respuestas correctas.

14. Cuando prepare su propio snack o bocadillo dentro de su casa, ¿Cuál es una buena

    regla para recordar?

   a. Lávese las manos antes de comenzar
b. Maneje las cacerolas calientes y cuchillos con cuidado

c. Manténgase saludable

d. Todo lo mencionado anteriormente.
Focus Group

**ICEBREAKER**

Let’s go around the table and introduce ourselves. Please tell us—your FIRST name, where do you come from? What do you like to do in your free time? Where do you live here?

I will start, again my name is XXXX and I am from XXXX. I live in XXXX and I like …

**FOCUS GROUP GROUND RULES**

A focus group is nothing more than a group of people discussing a topic, there are no rights or wrong answers, here all your comments should reflect your personal points of view. We want to learn how you feel about the Jump into Food and Fitness Program. What you think is very important to us. We are interested in both your positive and negative comments, so bring both types of comments up, and based on that, we will make changes to improve this program for others families.

You should feel free and comfortable with all the viewpoints that you express here. Today we will be using our first names and later all the information will be coded and no names will be contained in the reports. Because we are doing focus groups in two different counties, the collected information will be pooled with the opinions of people from the other counties. Since we are tape recording this session I’m going to ask that you speak up and speak one at a time. If several of you speak at once, it is impossible to
have a record of your opinions later. I’ll be moderating the discussion today and moving us from topic to topic. The session will last about 60 minutes.

Remember just speak up and one at a time.

1. Please describe a part of the newsletters that you especially liked.
   
   **Probe:** Tell me why you liked it.

2. Describe anything about the newsletters that you disliked.
   
   **Probe:** Tell me why you did not like it
   
   **Probe:** How could we improve that?

3. In your opinion, which of the newsletters were “worth” remembering?
   
   **Probe:** Tell me why it was “worth” remembering.

4. In your opinion, which of the food safety rules were “worth” remembering?
   
   **Probe:** Tell me why it was “worth” remembering.

5. From your point of view, which of the physical activities was or were “worth” remembering”?

   **Probe:** Why do you feel that way?

6. From your point of view, which of the nutrition activities was or were worth remembering?

   **Probe:** Why do you feel that way?

7. In your opinion, was there anything in the newsletters that were confusing or hard to understand?

   **Probe:** what was confusing?
8. How would you describe the newsletters?

**Probes:**

Well done or not well done?

Useful or not useful?

Convincing or not convincing?

Interesting or not interesting?

Informative or not informative?

9. How would you describe the instructions in the newsletters?

**Probes:**

Clear and easy to understand? or confusing, hard to understand?

Easy to read print size or hard to read print size?

10. What do you intended to change as a result of reading the newsletters?

**Probes:**

Do you intended to change some diet habits?

What do you intend to change?

**Probes:**

Do you intended to change and follow food safety rules?

Which ones?

**Probes:**

Do you intended to try and do some of the physical activities suggested in the newsletters?

Which ones?
11. What, if any, of the information in the Newsletters was new to you?

**Probes:**

All of it?
Most of it?
Some of it?
None of it?

12. Overall, how useful was the information in the JIFF Family’s Newsletter?

**Probes:**

Very useful
Somewhat useful
Not useful at all
Why?

13. Do you feel after the program you can do some of these physical activities?

**Probes:**

Can you tell me an example?
If you don’t feel you can do some of these activities could you tell me why?

14. Do you think that after the program you can follow some of the safety rules?

**Probes:**

Can you mention 1 or 2 examples?
If you don’t feel you can do some of these activities/rules could you tell me why?

15. Do you think you’ve learn something from the JIFF Family Newsletters?

**Probes:** Could you give some examples of what you learned?
16. Did you share the information in the JIFF Family Newsletters with anyone?

**Probes:** Can you list who.

17. Do you think these messages were speaking to someone like you?

**Probes:** Why or why not?

18. Do you think your husband/wife will support the activities included here?

**Probes:** If not, could you explain the reasons.

19. Indicate please your overall reaction to the program

**Probes:**

- A great program,
- An average program,
- A bad program

20. Would you recommend this program to your friends?

**Probes:** Can you mention why?

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**ADJOURNMENT**

Thank you very much for your valuable feedback about our program. What you have told us will be used to make this program better. Is there anything else that you would like to share with us before we end our discussion?
Grupo de Discusión

ROMPEHIELOS

Vamos a presentarnos diciendo nuestros nombres, de que país venimos y que es lo que nos gusta hacer en nuestro tiempo libre y en donde vivimos?

Voy a comenzar por presentarme yo, mi nombre es XXXXX, vengo de XXXX, vivo en XXXXX y me gusta XXXX.

REGLAS BASICAS DEL GRUPO DE DISCUSION

Un grupo de discusión no es nada más que un grupo de personas discutiendo un tema particular, aquí no hay respuestas correctas o erróneas, todos sus comentarios van a reflejar su punto de vista con respecto al tema que estemos tratando. Queremos saber que siente usted respecto del programa educativo: “Jump into Food and Fitness” Acercándose a la Nutrición y Actividad Física. Lo que usted piense acerca del programa es muy importante para nosotros. Estamos interesados en escuchar sus comentarios ya sean estos positivos o negativos acerca del programa, por lo tanto haga todo tipo de comentarios, y en base a todo lo dicho podremos hacer cambios y mejorar este programa educativo para otras familias.

Usted debe sentirse libre y cómodo con todos los puntos de vista expresados aquí. Hoy usaremos nuestros sólo nuestro nombre, y toda la información será codificada y en los reportes no aparecerán sus nombres. Como estamos haciendo foros de discusión en varios condados, la información recolectada será mezclada con las opiniones de otras personas de otros condados. Al estar grabando esta sesión, les voy a
pedir que por favor recuerden hablar uno a la vez, de lo contrario nos será muy difícil poder desgrabar sus opiniones luego. Yo estaré moderando la discusión del día de hoy, y estaremos hablando de diferentes temas. La sesión durara aproximadamente una hora. Por favor recuerden hablar de a uno. Muchas gracias!

1. Por favor describa que parte de los boletines informativos le ha gustado más

**Prueba:** Dígame por favor ¿por qué le gusto?

2. Por favor describa si hubo algo de los boletines informativos que no le haya gustado

**Prueba:**

Por favor puede decirme ¿por qué no le gusto?

Puede decirme por favor ¿cómo se lo puede mejorar?

3. **En su opinión, ¿cuáles de los boletines informativos vale la pena recordar?**

**Prueba:** Puede decirme ¿por qué vale la pena recordarlo?

4. En su opinión, ¿cuáles de las reglas de seguridad de los alimentos vale la pena recordar?

**Prueba:** Puede decirme ¿por qué vale la pena recordarlas?

5. Desde su punto de vista, ¿cuáles son las actividades físicas que valen la pena recordar?

**Prueba:** ¿Por qué piensa que esas valieron más la pena ser recordadas?

6. Desde su punto de vista, ¿cuáles de las actividades de nutrición valen la pena ser recordadas?
Prueba: ¿Por qué piensa que esas valieron más la pena ser recordadas?

7. En su opinión, ¿hubo algo en los boletines informativos confuso o difícil de entender?

Prueba:

¿Qué fue confuso?

¿Qué fue difícil de entender?

8. ¿Cómo describiría los boletines informativos?

Prueba:

Bien hechas o no bien hechas

Útil o no útil

Confías en lo que te dice o no confías en lo que te dice

Interesantes o no interesantes

Informativos o no informativos

9. ¿Cómo describiría las instrucciones que aparecen en los boletines informativos?

Prueba:

Claras y fáciles de entender; confusas y difíciles de entender.

Fáciles de leer en el tamaño en el que han sido impresas o difíciles de entender en el tamaño en el que han sido impresas.

10. ¿Qué es lo que intentaría cambiar a partir de lo leído en los boletines informativos?

Prueba:

¿Intentaría cambiar algunos hábitos alimenticios?

¿Que intentaría cambiar?
Prueba:

¿Intentaría cambiar algunas reglas de seguridad de los alimentos? ¿Cuáles?

Prueba: ¿Intentaría hacer alguna de las actividades físicas mencionadas en los boletines informativos? ¿Cuáles?

11. ¿Hay alguna información nueva para usted en los boletines informativos?

Prueba:

¿Toda?

¿Casi toda?

¿Alguna?

¿Ninguna?

12. En general, ¿qué tan útil le parece la información brindada en los boletines informativos?

Prueba:

Muy útil

Algo útil

Poco útil

Nada útil

13. ¿Usted siente que después de haber participado en el programa puede realizar alguna de estas actividades físicas?

Prueba:

¿Puede darme un ejemplo?
Si siente que no puede hacer ninguna de estas actividades físicas, ¿me puede decir por qué?

14. ¿Usted piensa que después de este programa pueda seguir alguna de las reglas de seguridad de los alimentos?

Prueba:

¿Puede mencionar 1 o 2 ejemplos?

Si piensa que no pueda seguir estas reglas/ actividades de seguridad de los alimentos, ¿podría indicarnos por qué?

15. ¿Usted piensa que aprendió algo de los boletines informativos?

Prueba: ¿Puede darnos algún ejemplo de lo que aprendió?

16. ¿Compartió con alguien la información aprendida de los boletines informativos?

Prueba: ¿Puede decir con quien la compartió?

17. ¿Usted piensa que los mensajes dados en los boletines informativos están pensados como para alguien como usted?

Prueba: ¿Por qué sí o por qué no?

18. ¿Usted piensa que su esposo/esposa avalaría las actividades propuestas aquí?

Prueba: ¿Por qué sí o por qué no?

19. ¿Puede indicar por favor su reacción ante el programa?

Prueba: un gran programa, un programa promedio, programa malo

20. ¿Recomendarías este programa a algún amigo o amiga?

Prueba: ¿Puede mencionar por qué?
DESPEDIDA

Muchas gracias por sus comentarios acerca de nuestro programa. Lo que nos ha dicho hará que podamos mejorar el programa en un futuro. ¿Hay algo más que desee compartir con nosotros antes de terminar con nuestra discusión?
Appendix E

Take-home newsletters translated to Spanish

Jump Into Foods and Fitness
Boletín Informativo para la Familia

La Alimentación y la Actividad Física: Deje que las Pirámides Sean su Guía.

En el programa educativo Jump into Food and Fitness “Acercándose a la Alimentación y a la Actividad Física” su hijo está aprendiendo que es importante llevar una alimentación variada que incluya alimentos de los distintos grupos que se encuentran en la pirámide alimenticia, porque lo ayudan a crecer y a estar saludable. La Pirámide para niños, (ver ilustración) los ayuda a elegir los alimentos y la actividad física que necesitan día a día para lograr un estilo de vida saludable.

Para obtener recomendaciones específicas para usted o para sus hijos visite el siguiente sitio en Internet en español: http://www.myplate.gov/sp-index.html. Una vez en la página de Mi Pirámide, vaya la columna de la izquierda en la que aparecen los temas, e ingrese con un doble click en el “Plan de Mi Pirámide”. Para determinar que cantidad de alimentos necesita decide uno de los grupos ingrese su edad, género y el nivel de actividad física que tiene. Ninguno de los grupos de alimentos es más importante que otro, para estar saludables hay que incluirlos a todos.

Una manera de asegurarse que su familia obtenga todos los nutrientes necesarios para estar saludable, es planear sus comidas y bocadillos o snacks utilizando diferentes alimentos de los 5 grupos alimenticios de la pirámide.

MiPirámide para Niños

Tanto que la mitad de los cereales que consume sean integrales (whole grains), elige las verduras y alimentos proteicos magros (lean), es decir bajos en grasa, y limite la cantidad de bebidas y alimentos con un alto contenido de grasas o azúcares y un bajo contenido de nutrientes.

¡Pruebe Esto!

Tante de incorporar más actividad física en el cronograma diario de sus actividades familiares: caminando en su lugar a hacerse unos ejercicios, durante las comidas cuando esté mirando televisión estará agregando algo de actividad física a una actividad sedentaria como lo es ver televisión.

Kangaroo Jump 1: Las Pirámides para la Salud
Michigan State University Extension
**Actividad Física en Familia...IDivíértase!**

La Pirámide de Actividad Física para Niños contiene diferentes tipos de actividades que ellos pueden llevar a cabo para estar saludables. Las actividades que deberíamos hacer todos los días se ubican en la parte más baja de esta Pirámide. El siguiente nivel muestra las actividades que deberían realizarse por lo menos 3 veces por semana. De dos a tres veces por semana, los niños deberían trabajar en su flexibilidad y fortalecimiento, así como también participar en actividades recreativas o de esparcimiento. La punta de la pirámide muestra actividades sedentarias que deberían realizarse lo menos posible.

Su hijo está aprendiendo que el estar físicamente activo todos los días lo va ayudar a estar fuerte y saludable, nadar o hacer un deporte son algunas opciones divertidas de actividad física. Además ayudan a su hijo a sentirse bien y a fortalecer los huesos y los músculos. Hay muchas cosas diferentes que usted puede hacer para mantenerse activo.

Ser físicamente activo no necesariamente implica que tenga que correr, nadar o practicar un deporte. Muchas tareas de la casa también pueden servir como ejercicios. Por ejemplo, rastrillar hojas en el patio, palear la nieve, pasar la barredora y/o aspiradora, o barrer el piso son muy buenas maneras de mantenerse activo en la casa. Salir a caminar con toda la familia puede ser también otro modo de disfrutar el ejercicio.

**La Zona de Seguridad de los Alimentos:**

¡Lávese las manos! Lavarse las manos con agua tibia y jabón durante 20 segundos ayuda a evitar las enfermedades transmitidas por los alimentos. Veinte segundos es el tiempo que le lleva cantar la canción de “Félix Completo” o la canción del alfabeto (ABC) dos veces seguidas. Recuerde a su hijo que debe lavarse las manos antes de cada comida y almorzar cuando él tome la iniciativa de lavarse.

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Kangaroo Jump I: Las Pirámides para la Salud
Michigan State University Extension
**RECETA:**

**Mini Pizzas**

Cuando los niños se involucren en preparar comidas nuevas, son más propensos a querer probar nuevos alimentos, por lo que le sugerimos que prepare esta receta con sus hijos. Es importante que revise y siga junto con sus hijos las reglas de seguridad de los alimentos, por ejemplo que se laven las manos antes de comenzar a preparar la receta.

**Ingredientes:**
- 6 Mitades de Bagels o English Muffins, Pan de Pita o Tortillas de Harina.
- 1 taza de salsa para pizza o espagueti (comprada o hecha en casa).
- 1 taza de ingredientes picados como cebolla, pimiento morrón, hongos, tomates, brócoli, aceitunas, tofu, jamón, pollo, pavo, carne para hamburguesa sin grasa (cocida).
- 1 taza de queso mozzarella bajo en grasa (part-skim) y rayado.

**Preparación:**
1. Todas las personas que vayan a cocinar deberán lavarse las manos con agua tibia y jabón durante 20 segundos antes de comenzar a preparar esta receta. Asegúrese de que todas las superficies donde vaya a trabajar estén bien limpias.
2. Pre-caliente el horno a 350 °F.
3. Esparza y distribuya uniformemente la salsa de tomate sobre las mitades de bagel, panes pita o las tortillas de harina. Agregue los ingredientes y finalmente agregue el queso mozzarella rayado.
4. Colocar las pizzas sobre la placa para hornear (sin engrasar) y hornear durante 8 minutos o hasta que el queso se haya derretido por completo.

**Utensilios:**
- Recipientes o tazones pequeños
- Tazas para medir
- Cuchillo para picar
- Tabla de picar
- Charola o placa para hornear

**Así Crecen los Niños**

Los niños de entre 8 y 12 años prefieren hacer las cosas por sí solos en lugar de que alguien les diga cómo hacerlas
- Tomen una soga y vean cuántas veces pueden saltar a la soga usted o su hijo o hija.
- Cocinen juntos y experimenten nuevas recetas con diferentes frutas y verduras.

A los niños en este rango de edad les gusta pertenecer a grupos, ¡que buena oportunidad para conocer nuevos amigos y hacer ejercicio! A su hijo tal vez le gustaría unirse a un club 4-H (que es una comunidad de jóvenes en todo el país, cuyos programas se enfocan en el aprendizaje sobre agricultura y los recursos naturales, ciencia, tecnología e ingeniería, estilos de vida saludables, liderazgo, ciudadanía así como también sobre desarrollo personal); a las tropas de los “boy scouts” u otro tipo de grupos, o practicar algún deporte de equipo que los ayude a desarrollar habilidades y no sólo a competir.

**En Internet**


También puede revisar los siguientes sitios de internet que contienen información muy interesante e incluso algunos contienen información en Español:
- [The American Dietetic Association](http://www.eatright.org)
- [CDC’s Division of Nutrition and Physical Activity](http://www.cdc.gov/nccdphp/dnpa/)
- [Food and Nutrition Information Center](http://www.nal.usda.gov/fnic/)
- [Gateway to Government Food Safety Information](http://www.fns.usda.gov/)

**Kangaroo Jump 1: Las Pirámides para la Salud**

*Michigan State University Extension*
¡Elige Alimentos Hechos a Base de Granos!

El grupo de los granos es la primera banda de la pirámide de alimentos para niños. Este grupo incluye una gran variedad de alimentos que son hechos a base de granos, los cuales provienen de los cereales. Los alimentos de este grupo nos aportan carbohidratos complejos que son una excelente fuente de energía.

¡El cuerpo necesita energía para moverse, para funcionar, para crecer y para hacer todas nuestras actividades! Muchos alimentos hechos a base de granos, especialmente los que son hechos con granos integrales (whole grains) o los hechos con granos fortificados (enriched grain) nos aportan vitaminas del grupo B y hierro. Los productos alimenticios hechos con granos integrales o a base de salvado también aportan fibra.

El día de hoy durante el programa educativo Jump into Food and Fitness –“Acercándose a la alimentación y a la actividad física”- los niños aprendieron lo bueno que son los granos, la gran variedad de alimentos que existen hechos con granos y cómo éstos les proporcionan energía para correr, saltar y jugar. Ellos también aprendieron que los niños necesitan comer todos los días alimentos que estén hechos con granos; y que la mitad de éstos deben ser de granos integrales. En general, se recomienda que los niños entre 8 a 11 años de edad consuman de 5 a 7 onzas de granos (Por ejemplo, 1 rebanada de pan equivale a 1 onza de granos).

Para obtener recomendaciones específicas para usted o sus hijos visite el siguiente sitio en Internet en español: http://www.mypyramid.gov/sp-index.html. Una vez en la página de Mi Pirámide, vea la columna de la izquierda en la que aparecen los temas, e ingrese con un doble click en el “Plan de Mi Pirámide”. Para determinar qué cantidad de alimentos necesita de cada uno de los grupos ingrese su edad, género, peso y el nivel de actividad física que tiene. Ninguno de los grupos de alimentos es más importante que otro, para estar saludables hay que incluirlos a todos.
Muchos de los alimentos hechos con granos pueden ser excelentes bocadillos o snacks que los niños pueden disfrutar. La próxima vez que sus hijos tengan antojo de comer algún bocadillo o snack, ofrézcale alguno de los siguientes bocadillos hechos con alimentos a base de granos:

- Pan integral con una rebanada de jamón de cerdo o de pavo con queso o rollos de jamón de pavo y queso.
- Galletas Marías o galletas de animalitos con un vaso de leche descremada.
- Pasteles de arroz untados con crema de cacahuate y rodajas de plátano (banana).
- Cereal con leche y fruta.
- Tostadas o totopos de maíz horneados con salsa.

**La Zona de Seguridad de los Alimentos**

Cocinar y preparar alimentos puede ser una tarea muy divertida y una experiencia educativa muy buena para sus hijos. Sin embargo, para trabajar en la cocina de manera segura, es importante obedecer algunas reglas básicas. Ayude a sus hijos a ser “cocineros seguros”. Cuando prepare alimentos con sus hijos revise las siguientes reglas básicas de seguridad en la cocina.

- Siempre comience a cocinar con las manos limpias y limpiando el área de trabajo.

**Actividad Física en Familia... ¡Diviértase!**

Aumente su flexibilidad y elasticidad. El cargar las bolsas del supermercado y levantar pesas son ejemplos de actividades que lo pueden ayudar a fortalecerse. El fortalecer sus músculos lo ayuda a mantener sus huesos en buen estado. Usted puede aumentar su flexibilidad haciendo ligeras estiramientos, caminando, bailando o haciendo ejercicios de yoga. El principio FIT puede ser usado para ayudarlo a crear un programa de actividad física para su familia. Cada componente de la actividad física tiene relación con algunos de los principios FIT.

- **F = Frecuencia**: Se refiere a qué tan seguido debe hacer un ejercicio para mantener o mejorar su estado físico.
- **I = Intensidad**: Se refiere a qué tan intensamente o duro debe ejercitarse para mantener o mejorar su estado físico.
- **T = Tiempo**: Se refiere a cuánto tiempo debe ejercitarse para mantener o mejorar su estado físico.
RECETA:

**Deliciosos y Rápidos**

**Palitos de Pan con Queso**


**Ingredientes:**
- 4 panes integrales para hot dog, o bolillos o pan francés
- Aceite vegetal para cocinar en spray
- Queso parmesano
- Ajo en polvo

**Procedimiento:**
1. Todas las personas que vayan a cocinar deberán lavarse las manos con agua tibia y jabón durante 20 segundos antes de comenzar a preparar esta receta. Asegúrese de que todas las superficies donde vaya a trabajar estén bien limpias.

2. Pre-caliente el horno a 350°F.

3. Abra cada pan y rocíelo ligeramente con el aceite en spray. Eparza y distribuya uniformemente el queso parmesano y el ajo en polvo para darle un rico sabor.

4. Corte los panes a lo largo y obtendrá dos palitos. Coloque los palitos de pan en la placa para hornear y hornéelos entre 10 a 15 minutos o hasta que estén crujientes.

_**Rinde 8 palitos de queso**_

**Utensilios:**
- Cuchillo
- Charola o placa para hornear sin engrasar

**Así Crecen los Niños**

Los niños de 8 años de edad generalmente están llenos de energía y necesitan oportunidades para mantenerse físicamente activos. Esta es una buena edad para hacer actividades en familia, como ir a pasear en bicicleta, hacer caminatas por la montaña o en el parque o jugar en la nieve. Los niños de entre 9 y 11 años de edad necesitan tener mucha actividad física. Sin embargo, también comienzan a entrar a la pubertad, experimentan cambios físicos, crecen rápidamente y también cambian sus intereses. Intente hacer nuevas recetas junto con toda la familia, preparen la cena juntos y jueguen a juegos nuevos. A esta edad los jóvenes son capaces de asumir más responsabilidades, quieren estar con sus amigos y participar en actividades grupales. Ayude a su hijo a aprender el valor de ayudar a otros haciendo servicio comunitario junto con la familia, como por ejemplo llevar comidas a los ancianos mediante el programa de Alimentos sobre ruedas (Meals Wheels) o a trabajar en los bancos de alimentos que hay en su localidad. Existen muchas otras oportunidades para hacer trabajo voluntario dentro de su comunidad, averigüe donde se necesitan voluntarios y hágalo. ¡Anímese a ser voluntario!

**En Internet**

Revise con sus hijos los siguientes sitios de internet:

- CDC’s Division of Physical Activity: [http://www.cdc.gov/nccdphp/dnpa/](http://www.cdc.gov/nccdphp/dnpa/)
- National Pasta Association: [http://www.pasta.org](http://www.pasta.org)
- The Popcorn Board: [http://www.popcorn.org](http://www.popcorn.org)
¡Celebremos el Estar Saludables!

*Jump Into Foods and Fitness*

**Boletín Informativo para la Familia**

El día de hoy durante el programa de *Jump Into Food and Fitness* (JIF) los niños aprendieron sobre la importancia de comer diariamente más frutas y verduras de todos los colores. Agregue frutas y verduras a todas sus comidas favoritas, como la pizza, las pastas, las sopas y caldos, los guisados de carne, los platos tradicionales que cocine en su casa e incluso a los postres. En general la cantidad de verduras que se recomiendan que los niños de 8 a 11 años de edad consuman varía en un rango de 1 ½ a 3 tazas. Una taza de vegetales crudos o cocidos es el taza de jugo de fruta 100% natural equivalen a una taza. Una taza de verduras, 2 tazas de vegetales crudos de hojas verdes como la lechuga, acelgas o espinacas también equivalen a una taza. La cantidad de frutas que se recomiendan que los niños de 8 a 11 años de edad consuman varía en un rango de 1 ½ a 2 tazas. 1 taza de fruta, 1 taza de jugo de fruta 100% natural, ½ taza de fruta deshidratada equivalen a 1 taza de frutas. Las cantidades que mencionamos en este boletín están calculadas con base en la edad, el sexo y el nivel de actividad física que realiza cada niño.
Actividad Física en Familia... ¡Diviértase!

Un calentamiento adecuado antes de hacer cualquier ejercicio ayuda a estirar los músculos y a prevenir lesiones. Trate de hacer algún ejercicio de calentamiento con sus hijos antes de que ellos comiencen a hacer alguna actividad física intensa.

1. Piérese con las piernas abiertas y fíjese que la distancia que haya entre una pierna y la otra, sea la misma distancia que hay de un hombro suyo al otro. Lentamente báje su tronco hacia el suelo sin doblar las rodillas y manténgase en esta posición entre 5 y 15 segundos.

2. Doble su pierna derecha hacia atrás. Con su mano derecha agárrese su tobillo derecho y llévelo suavemente hacia la espalda. Utilice una pared para ayudarse a mantener el equilibrio. Cambie de lado y agárre con la mano izquierda su tobillo izquierdo.

3. Coloque el brazo izquierdo cruzado por arriba de su pecho, utilice su brazo derecho para sostener el codo y presione suavemente con la mano derecha su brazo izquierdo hacia el pecho. Sostenga esta posición durante 8 a 12 segundos. Repita el movimiento cruzando el brazo derecho.

4. Antes de comenzar a trotar o correr camine lentamente durante 5 minutos para que el ritmo de su corazón aumente.

5. Relajarse o enfriarse después del ejercicio es tan importante como el calentamiento. Cinco minutos de relajación permiten que los latidos de su corazón se desaceleren y que su respiración sea normal y vuelva a la calma. Para relajarse o enfriarse repita las actividades que hizo en el calentamiento.
**RECETA:**

Batatas/Camotes Rellenos y Horneados*

* Adaptado de La Comisión del Camote de Carolina del Norte, Inc.

Los niños pueden ayudar a cocinar este platillo, lavando los camotes, utilizando un agarrador de cardas suaves, así como también la pueden ayudar a rellenar los camotes con la mezcla de camote y la piña.

**Ingredientes:**
- 6 camotes medianos
- 1/2 taza de jugo de naranja
- 3 cucharadas de margarina
- 1/4 de cucharadita de sal
- 1 taza de 8 onzas de piña picada y escucañada

**Utensilios:**
- Papel de cocina
- Cuchillo
- Charola o placa para hornear
- Taza medidora de líquidos
- Cubetas medidoras
- Cucharas para servir
- Ablanaditas
- Bol/Tarón mediano para rellenar la mezcla
- Pistones desechables
- Cubiertos desechables
- Servilletas de papel

**Procedimiento:**
1. Todas las personas que vayan a cocinar deberán lavarse las manos con agua tibia y jabón durante 20 segundos antes de comenzar a preparar esta receta. Asegúrese de que todas las superficies donde vaya a trabajar estén bien limpias.
2. Precaliente el horno a 375°F. Utilice un agarrador para limpiar los vegetales. Remueva todo la superficie de la cáscara de los camotes y hágalo bajo el chorro de agua fría. Saque los camotes con papel de cocina.
3. Coloque los camotes sobre la placa para hornear, ligeramente engrasada y haga por una hora o hasta que estén tiernos o suaves.
4. Saque los camotes del horno y permita que se enfrien ligeramente. Corte una franja a lo largo del camote, (a lo largo y no a lo ancho). Utilice una cuchara y remueva la cáscara del del camote cortando de que se despegue de su cáscara entera que se rompa.
5. Mezcle el relleno del camote con el jugo de naranja, la margarina y la sal en un tarón/bowl, mezcle hasta que quede esponjosa la mezcla y agregue la piña a la mitad.
6. Rellene las cáscaras del camote con la mezcla del camote con la piña que preparó.
7. Coloque nuevamente los camotes en la placa para hornear ligeramente engrasada y cocinelos durante 10 minutos más.

**Así Crecen los Niños**

Este es un buen momento para ayudar a su hijo o hija a desarrollar o mejorar su comunicación. Una idea o consejo para lograrlo es hacer preguntas abiertas en lugar de realizar preguntas donde la respuesta sea solamente sí o no. (Por ejemplo, pregúntele a su hijo “¿Por qué no me cuentas que hiciste hoy en el programa de nutrición y actividad física?” o “Describe cuál fue la actividad más interesante que hiciste hoy?”) También esparza unos segundos para que su hijo o hija tengan la posibilidad de pensar antes de hablar y responder a su pregunta. Estimule a su hijo o hija hablen acerca de sus éxitos. Vaya a la biblioteca local y busque libros infantiles que hablen sobre la importancia de una buena alimentación y de realizar actividad física y que puedan llegar a interesarse al niño.

**En Internet**

- Revise los siguientes sitios de internet con sus hijos:
  - CDC’s Nutrition and Physical Activity Program: [http://www.cdc.gov/nccdphp/dnpa/]
  - 5 a Day the Color Way: [http://www.5aday.com]
  - National Cancer Institute Eat 5 to 9 a Day for Better Health: [http://www.cancer.gov/]
  - President’s Council on Physical Fitness and Sports: [http://www.fitness.gov]
  -激活: [http://www.kidnet.com]

Algunas bibliotecas locales también cuentan con una sección de libros y revistas en español. Anime a sus hijos lean por placer por lo menos 3 horas a la semana. Apague la televisión y léales un libro o pidales que él se lo lea a usted. El idioma no debe ser una barrera para hacer esta actividad juntos.

**Kangaroo Jump 3: ¡Celebremos el Estar Saludables!**

Michigan State University Extension
Creciendo Saludable. Huesos y Músculos....

Los niños crecen rápido y no permanecen del mismo tamaño por mucho tiempo. Sus huesos y músculos crecen y se desarrollan día a día. Hay que estimular su crecimiento y desarrollo saludable ofreciéndoles una gran variedad de alimentos, incluyendo alimentos ricos en proteínas como las carnes (huevos, pollo, pescado) y los frijoles; así como también aquellos alimentos del grupo de los lácteos (leche, queso y yogurt) que aportan calcio, y que son necesarios a lo largo de nuestra vida para ayudarnos a construir y a mantener nuestros huesos saludables. Generalmente la cantidad de verdures que se recomienda que los niños de 8 a 11 años de edad consuman varía en un rango de 2 a 3 tazas. Las cantidades de alimentos recomendadas para que niños de 8 a 11 años coman diariamente del grupo de los lácteos, varía entre un rango de 2 a 3 tazas. Por ejemplo, una taza de leche o yogurt equivalen a 1 ½ onza de queso natural como son el queso cheddar, Chihuahua o algunos quesos tipo Mexicanos (1 rebanada equivale a una onza). Asimismo una taza de alimentos del grupo de la leche también es igual a 2 onzas de queso procesado entre los cuales se incluyen el queso untable, queso tipo Americano o queso amarillo. Las recomendaciones diarias de los alimentos dentro del grupo de las carnes y los frijoles varía en un rango entre 4 a 6 onzas para niños entre 8 y 11 años.

Tres rebanadas de jamón son iguales a una onza de carne de vaca o de ave magra o pescado, y equivalen también a un 1 huevo, una cucharada sopera de crema de cacahuete, ¼ de taza de frijoles cocidos, o 9 nueces o semillas. Para obtener recomendaciones específicas para usted o para sus hijos visite el siguiente sitio en Internet en español: http://www.mypyramid.gov/sp-index.html. Una vez en la página de Mi Pirámide, vea la columna de la izquierda en la que aparecen los temas, e ingrese con un doble click en el “Plan de Mi Pirámide”. Para determinar que cantidad de alimentos necesita de cada uno de los grupos ingrese su edad, género y el nivel de actividad física que realiza. Ninguno de los grupos de alimentos es más importante que otro para estar saludables hay que incluirlos a todos.
Los huesos y músculos que se mantienen en actividad son músculos y huesos saludables. El ejercicio que uno realiza, hace que los músculos largos trabajen, y también que el corazón bombee sangre y que aumente el ritmo de la respiración convirtiéndolo en un “corazón más inteligente”. No solamente se requiere de una buena nutrición para que sus músculos y huesos estén saludables, sino también es necesario realizar ejercicio constantemente para ayudar a fortalecer los músculos y a construir masa muscular. Haga ejercicio en familia y sirva de ejemplo a sus hijos. Traten de hacer todos juntos una caminata vigorosa, salgan a trotar o a andar en bicicleta alrededor del parque, disfruten nadar en familia o andar en patines. El saltar a la soga también puede ser una actividad divertida.

Actividad Física en Familia...
¡Diviértase!

¡Usted piensa que no tiene tiempo para hacer ejercicio? Sin embargo estar físicamente activo puede ser fácil y divertido si piensa en formas creativas para incorporar actividad física en su ocupada agenda. Intenta las siguientes actividades:

- Haciendo sus tareas diarias. ¡Sí, sí agrega un poco más de movimiento a sus pesadas tareas de la casa estará haciendo más ejercicio, y así estará más activo! Frate de cortar el césped, aspirar, limpiar su recámara o habitación, barrer las hojas del jardín o sacar la basura a un ritmo más rápido.
- Gane dinero haciendo ejercicio. Quite las hojas de su vecino, pase el perro de un amigo o lave el automóvil de alguien más.
- ¡Baile! ¡Ponga su música favorita y muévase sin parar!
- Únase a un equipo deportivo en el colegio o a través del sistema de parques de su comunidad.

La Zona de Seguridad de los Alimentos

¡Mantenga Frios los Alimentos Frios!

¡Empacando el almuerzo! Usted, debe de tener especial cuidado cuando prepare alimentos que van a ser consumidos varias horas después de haber sido preparados. Siga las siguientes instrucciones para asegurarse que sus alimentos son seguros para comer cuando usted esté listo para ello:

- Siempre comience la preparación de los alimentos con las manos, utensilios y equipo limpios.
- ¡Mantenga fríos las cosas frías! Los alimentos que son sacados del refrigerador, deben mantenerse frías. Esto se aplica a alimentos tales como quesos, carnes, atún, huevos, ensaladas con pollo, frutas estalladas ya abiertas, yogurt y verduras frescas.
- Ponza en la lonchera un gel para congelar o una caja de hajo 100% natural congelado para ayudar a mantener los alimentos fríos. El hajo de caja se descongelara para la hora del almuerzo.
- Guarde fuera del refrigerador los alimentos que no necesiten estar fríos como lo son las frutas frescas o galletas para un bocadillo o snap después de la escuela o trabajo.
- Tire a la basura los restos de alimentos que no se consumieron.

Kangaroo Jump 4: Póngase en Movimiento
Michigan State University Extension
**Quesadillas**

Las quesadillas son una de las alternativas favoritas para salir de un apuro a la hora del almuerzo o de la cena, aquí se presenta una alternativa que no requiere freí las quesadillas. Además de que en esta receta se incluyen ideas para agregar vegetales.

**Ingredientes:**
- 2 tortillas de 8 pulgadas de diámetro
- 1/2 taza de queso Cheddar rayado bajo en grasa, o queso Monterrey Jack o Mozzarella bajo en grasa (low-fat).
- Queso Mexicano tipo Chihuahua, Asadero o Queso bajo en grasa.
- 1 cucharadita sopera de vegetales picados o en rodajas tales como cebolla, tomate, pimientos o chícharos.
- Aguacate o guacamole, hongos y/o frijoles.
- Salsa (opcional)

**Utensilios:**
- Cuchillo
- Tazas para picar
- Charola para hornear o para preparar guisados o cornal para la estufa
- Platos desechables
- Horno u hornos microondas

**Preparación:**
1. Coloque una de las tortillas sobre la placa para hornear. Adicione el queso rayado de arriba a la tortilla, si desea agregue los vegetales.
2. Coloque la otra tortilla encima de la primera, asegurándose de que todas las superficies donde van a tocar estén bien limpias.
3. Precaliente el horno a 350 °F.
4. Cubra con la segunda tortilla y hornee durante 10 minutos o hasta que el queso se haya derretido.
5. Corte alternativa es usar el cornal de la estufa.

**Así Crecen los Niños**

Probar alimentos nuevos y apagar la televisión y la computadora para estimular que sus hijos hagan más ejercicio o tengan más actividad física significa que están tomando nuevas decisiones. Utilice como guía los siguientes pasos que lo pueden ayudar en el proceso de tomar de decisiones:

- **Alto:** Mantenga la calma. Analice cuál es el problema. ¿Por qué esta situación es tan importante para usted o para su hijo? ¿Qué es lo que le está molestando?
- **Pienso.** ¿Cuáles son las diferentes maneras de resolver este problema? Piense de una forma creativa, encuentre nuevas recetas y planee actividades físicas que sean divertidas.
- **Póngase en Acción.** Pruebe nuevas comidas y formas de ejercitarse, hable con sus hijos acerca de lo que les gusta. Pregúnteleles como se sienten probando cosas nuevas y qué otras cosas les gustaría hacer o comer.

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**En Internet**

Revisos los siguientes sitios de internet con sus hijos:

- [CDC’s Nutrition and Physical Activity Program](http://www.cdc.gov/nccdphp/dnpa/)
- [National Dairy Council](http://www.nationalsourcecouncil.org)
- [National Pork Producer’s Council](http://www.nppc.org)

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Kangaroo Jump 4: Póngase en Movimiento

Michigan State University Extension
Jump Into Foods and Fitness
Boletín Informativo para la Familia

Ponga su Cerebro en Movimiento..... ¡Desayune!

¿Qué quiere que su comienzo del día sea brillante? ¿Quiere tener energía que le ayude a comenzar el día? Bueno, entonces desayune. El hacer una comida por la mañana, es decir el desayuno, le ayuda a romper el ayuno de la noche anterior. El desayuno le proporciona a su cuerpo y a su cerebro la energía y los nutrientes necesarios para comenzar el día. ¡Esto es verdad! Estudios científicos han demostrado que los niños que desayunan tienen más energía, están más alertas y generalmente tienen mejor rendimiento en la escuela, que aquellos niños o niñas que no desayunan y también son capaces de concentrarse mejor y tienden a ausentarse menos.

El desayuno puede ser cualquier alimento nutritivo y este puede incluir alimentos de cada uno de los grupos de la pirámide. ¡Sea creativo! Trate de intercambiar algunos de los alimentos tradicionales del desayuno por algunas de estas nuevas combinaciones que son rápidas y fáciles de preparar:

- Agréguele fruta o cereal al yogurt.
- Rebanadas de pizza que sobro de la cena del día anterior y un vaso de jugo de frutas 100 % natural.
- Galletas saladas con cubitos de queso y un vaso de jugo 100 % natural.
- Macarrón con queso que sobro del día anterior y jugo de vegetales.

- Un “smoothie” de fruta (Yogurt licuado con fruta y leche descremada o baja en grasa) y pan tostado.
- Palitos de pan con crema de cacahuate y rodajas de manzana.
- Si usted tiene muy poco tiempo para desayunar, tome algún alimento para llevar y cózamelo después.
- Fruta fresca entera o cortada, vegetales crudos y cereal.
- Galletas saladas untadas con crema de cacahuate y un plátano o banana. Puede sustituir la crema de cacahuate por mermelada de frutas.
- Cubos o palitos de queso, fruta deshidratada como las cerezas o las pasas.
- Jugos de caja 100% natural y cereales o trail mix empaquetado en una bolsa de plástico pequeña.
Así Crecen los Niños

Los niños de 8 años de edad pueden estar más interesados en el proceso de hacer una actividad o un proyecto que en la finalización del mismo o en el producto final del mismo. Ellos le entenderán mejor si usted les muestra cómo hacer algo, en lugar de decirles lo que tienen que hacer. Por lo tanto para lograr esto prepare juntos una comida o platillo siguiendo una receta, o hagan juntos algún tipo de actividad física. A medida que los niños crecen y se están convirtiendo en adolescentes su habilidad para pensar cambia, pueden entender instrucciones más complejas y llevar a cabo tareas más eficientemente. Para cuando llegan a la adolescencia, están mejor preparados y son capaces de entender ideas y conceptos más abstractos o complejos, pudiendo cocinar por sí solos o incluso dirigir a un equipo de niños más pequeños en su deporte favorito. Cuando los niños llegan a la edad de 11 o 12 años se vuelven más temerosos de hacer cosas nuevas, por lo tanto animelos a hacer actividades que aumenten tanto sus habilidades como sus destrezas físicas y mentales. Asegúrese de darles un estímulo positivo cuando lo necesiten y ser un buen modelo para ellos.

La siguiente lista incluye ejemplos de diferentes formas en que lo puede animar a levantarse y a moverse:

- Apague la televisión por una semana o limite el tiempo que sus hijos pasan frente a la televisión a una hora al día.
- Planee un sketch cómico para hacer con sus hijos y preséntenlo a su papá cuando este llegue de trabajar.
- Salgan a caminar.
- Salen a la soga juntos.
- Andén en bicicleta juntos.
- Enciendan canastas juntos.
- Jueguen a tirar y atrapar pelotas juntos.

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La Zona de Seguridad de los Alimentos

El alejar a los microbios de los alimentos significa mantener los alimentos seguros para su consumo. Siga estas simples instrucciones para mantener los microbios lejos de los alimentos:

Limpio - Lívese las manos y todas las superficies donde va a preparar alimentos antes, durante y después de prepararlos.

Separe - Mantenga separados los alimentos crudos de los cocidos. Utilice varias tablas de cortar, platos u otros utensilios para mantener separados los alimentos crudos de los cocidos o alimentos listos para consumir.

Cocine - Cuando cueza los alimentos, trate de utilizar un termómetro para saber por ejemplo cuando la carne está bien cocida y para asegurarse también que los restos de los alimentos sean recalentados a temperaturas correctas.

Enfrie - Enfrie los alimentos de forma adecuada. No permita que los alimentos se queden a temperatura ambiente por más de 2 horas. Utilice varios recipientes pequeños para almacenar alimentos en el refrigerador y de esta forma enfriarlos más rápidamente.

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Kangaroo Jump: Comienza el Día Fortaleciéndote
Program 2020 University Extension

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RECETA:

Licuado de Frutas

Tép o Consejo: Si agregas leche en polvo al contenido de proteínas y de calcio de la receta se aumentará considerablemente.

Ingredientes:
- 2 tazas de leche parcialmente descremada o descremada
- 1 taza de frutas cortadas en cubos. Por ejemplo: manzanas, peras, ciruelas, melones, fresas, naranjas, melocotones, sandías, melón y/o mango
- Una pizca de canela
- ¼ taza de leche en polvo (opcional)

Utensilios:
- Batidora
- Taza medidora de líquidos
- Taza medidora para sólidos
- Cacharlas medidoras
- Vasos desechables

Preparación:
1. Todas las personas que vayan a cocinar deberían lavarse las manos con agua tibia y jabón durante 20 segundos antes de comenzar a preparar esta receta y asegúrese de que todas las superficies donde vaya a trabajar estén bien limpias.
2. Incorpore en la batidora la leche junto con la fruta y si lo desea agregue también la leche en polvo.
3. Batá hasta que quede sin grumos a la vista. Sirva el licuado dentro de tazas y agreguele encima una pizca de canela.
4. Sirva inmediatamente y disfrute.

Receta para 4 porciones de media taza

En Internet

Reúne estos sitios Web con tus hijos:
- CDC’s Nutrition and Physical Activity Program: http://www.cdc.gov/nccdphp/dnpa/
- Governor’s Council on Physical Fitness, Health and Sports/Michigan Fitness Foundation: http://www.michiganfitness.org
- PE Central: http://pecentral.com
- President’s Council on Physical Fitness and Sports (PCPS): http://www.fitness.gov

Actividad
Física en
Familia
IDiviertase!

Vaya en familia a los parques o llave a sus niños a las playas. Vea que divertido puede ser jugar con sus hijos haciendo equilibrio en el pasamanos, columpiarse o deslizarse por los resbaladeros. Juegue a tirar y atrapar la pelota con sus hijos, también puede pasar la pelota o enseñar canastas. Realice alguna actividad ligeramente estiramiento y ayude a calentar los músculos y a prepararse para el comienzo del día. La familia entera se beneficiará de hacer ejercicio y del tiempo que se han divertido haciéndolos juntos!

Kangaroo Jump: Comienza el Dia Fortaleciéndote
Michigan State University Extension
**Jump Into Foods and Fitness**

**Boletín Informativo para la Familia**

**Comiendo lo Correcto en el Camino**

La mayoría de la gente disfruta comer bocadillos o snacks, ya que esto representa una buena forma para recargar energía entre comidas. "Los bocadillos o snacks inteligentes," son los que están hechos con alimentos de los 5 grupos que están mencionados en la pirámide de los alimentos y además estos bocadillos o snacks pueden ayudar a los niños activos y a los que están creciendo a satisfacer sus necesidades de energía y nutrientes. La clave es elegirlos inteligentemente. Para conseguir un buen equilibrio y variedad, elija como bocadillos o snacks alimentos de todos los grupos de la pirámide y que sus hijos puedan disfrutar. Tenga disponibles en el refrigerador o en la despensa "alimentos nutritivos" que los niños puedan servirse solos, tales como panes y panecillos hechos con granos integrales, granola baja en grasa o trail mix y yogurt en envases individuales. Mantenga siempre disponible una gran cantidad de fruta ya sea fresca, enlatada o deshidratada además de una gran variedad de vegetales de colores llamativos y crujientes que puedan ser cortados y consumidos fácilmente.

Limite los bocadillos o snacks que tengan un alto contenido de grasa y los que contengan mucha azúcar ya que éstos proporcionan muchas calorias y muy pocos nutrientes. Alimentos con esta combinación pudieran ocasionarle a su hijo el que aumente de peso.

La próxima vez que los niños quieran comer algo entre comidas, ofrézales alguno de estos bocadillos o snacks intelligentes:
- Fruta fresca en rebanadas o en cubitos.
- Vegetales frescos cortados acompañados de un dip
- Galletas Graham o Marías, galletas de avena o barritas de higo.
- Totopos o tostadas horneadas con salsa.
- Pretzels.

**La Zona de Seguridad de los Alimentos**

¡Mantenga los Alimentos Separados!

Es importante que dentro del refrigerador mantenga la fruta y vegetales frescos que pueden ser comidos crudos o como bocadillos o snacks separados de la comida cruda y de los jugos de las carnes, ya que estos últimos pudieran llegar a contaminar con microbios a los alimentos que estén listos para consumirse.
Actividad Física en Familia... ¡Diviértase!

La seguridad y la actividad física van de la mano. Cuando haga algo de ejercicio haga que la seguridad sea también parte de su rutina tal como lo es la actividad física misma. Siguiendo estas simples ideas, los padres pueden ayudar a hacer que los deportes y los ejercicios que sus hijos realicen sean una experiencia segura.

- Cuando su hijo haga un deporte o algún tipo de ejercicio, asegúrese de que use el calzado adecuado. Por ejemplo, su hijo puede evitar torceduras de tobillos usando ropa diseñada específicamente para jugar básquetbol o para correr.
- Asegúrese de que su hijo beba suficiente líquidos antes, durante y después de realizar cualquier tipo de actividad física.
- Asegúrese de que su hijo use casco y que toda su ropa sea de seguridad y vaya de acuerdo con la actividad que está llevando a cabo (por ejemplo, que usen casco, coderas y rodilleras cuando anden en patines o que usen espinilleras cuando jueguen al fútbol).
- Si su hijo usa anteojos y juega deportes violentos o de contacto, asegúrese de que sus anteojos tengan marco resistente y duro; y que los cristales sean de un material que no se astille o rompa.
- Trate de que su hijo haga ejercicios de calentamiento y enfriamiento adecuados para evitar lastimarse durante el ejercicio.

Pequeñas Rutinas de Ejercicios Para Hacer en Familia

A su hijo se le ha enseñado a incorporar pequeñas rutinas de actividad física todos los días. Pídale a su niño que le enseñe algunas de éstas. Algunos ejercicios que se pueden hacer en familia incluyen:

- Mientras vean televisión pueden bailar todos juntos durante los comerciales.
- Marchar ida y vuelta hasta el buzón del correo.
- Estirarse juntos por unos minutos después de comer.

Kangaroo Jump & Para el Camino
Michigan State University Extension
**RECETA:**

**Deliciosas Papitas a la Francesa Horneadas**


**Ingredientes:**
- 8 a 10 papas grandes
- 1 cucharadita sopera de aceite vegetal
- ½ cucharadita de ajo en polvo
- ½ cucharadita de pimentón dulce, paprika o chile en polvo
- Una pizca de pimienta negra
- Una pizca de sal (opcional)

**Utensilios:**
- Cuchillo
- Telita para picar
- Taza
- Rollo de papel de cocina
- Taza medidora para salsas
- Cucharas medidoras
- Recipiente o bol mediano para realizar la mezcla
- Placa para hornear
- Platos desechables
- Servilletas de papel

**Preparación:**

1. Todas las personas que vayan a cocinar deberán lavarse las manos con agua tibia y jabón durante 20 segundos antes de comenzar a preparar esta receta y asegúrese de que todas las superficies donde vaya a trabajar estén bien limpias.
2. Pre-calentar el horno a 425°F.
3. Permita que los niños laven las papas con un cepillo de cerda suave bajo el chorro de agua fría, luego seque las papas con el papel de cocina.
5. Agregue el aceite dentro del recipiente y agregue las papas.
6. Remueva las papas hasta que estén bien empapadas de aceite y espolvoree las especias.
7. Coloque las papas en una sola capa sobre la placa para hornear. Hornee entre 30 a 35 minutos o hasta que las papas se vean bien doradas.

**En Internet**

Reúne los siguientes sitios Web con sus hijos:

- CDC’s Nutrition and Physical Activity Program: http://www.cdc.gov/nccdphp/dnpa/
- Governor’s Council on Physical Fitness, Health and Sports/Michigan Foundation: http://www.michiganfitness.org
- PE Central: http://pecentral.com
- President’s Council on Physical Fitness and Sports (PCPS): http://www.fitness.gov
- Team Nutrition (Michigan): http://www.mtn.fcs.msu.edu

**Así Crecen los Niños**

Todas las familias enfrentan conflictos; éstos van desde convencer a algún miembro de la familia para probar algún alimento nuevo o convencerlos de ir a jugar afuera e incluso hasta convencerlos de que usen ropa apropiada. Ayude a los niños a pensar detenidamente y a que elijan la mejor manera de solucionar pacíficamente sus conflictos.

Sea un modelo positivo a imitar para que de esta forma sus hijos puedan desarrollar las habilidades necesarias para resolver problemas cuando estén enojados. Comience por calmarse, hábleles acerca de cómo se siente usando mensajes tales como este: “me siento enojado cuando tu…” Pregúntele cómo se sienten acerca de esta situación, entonces use un lenguaje respetuoso para trabajar en una situación donde todos puedan ganar. A veces, con sólo darles a los niños y adolescentes la posibilidad de elegir ayuda a que aprendan diferentes maneras de resolver problemas.

Encuentre maneras de reducir el estrés familiar como por ejemplo escuche música, salga a caminar o a encontrar lugares dentro de su comunidad donde puedan ejercitarse o aprender nuevas habilidades. ¡Todo esto se puede usar de diferentes maneras para energizar nuestros días!

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*Kangaroo Jump 6: Para el Camino*

Michigan State University Extension
Jump Into Foods and Fitness
Boletín Informativo para la Familia

Elecciones para Tener Buena Salud

La elección de sus alimentos y la actividad física pueden marcar una diferencia en su estado de salud en general. Todos los días se nos presentan posibilidades para elegir un estilo de vida saludable. Cuando comemos fuera de casa, podemos elegir alimentos más saludables que otros; por ejemplo, podemos elegir tomar leche en lugar de soda, o también podemos comer fruta como bocadillo o snack en lugar de pastel. Podemos elegir jugar afuera en lugar de sentarnos a ver televisión o jugar videojuegos.

La relación que hay entre nuestros hábitos (alimentarios y de actividad física), y la salud son muy importantes. La alimentación por sí sola no puede hacerle estar saludable, sin embargo el llevar una buena alimentación, - que se basa en comer alimentos variados y hacer una buena elección de ellos- puede ayudarle a tener un buen estado de salud en general. Es importante también que se comprometa a hacer algún tipo de actividad física y que lo haga seguro y de manera constante.

La Zona de Seguridad de los Alimentos:

¡Fechas! La próxima vez que vaya a la tienda o al supermercado, revise las fechas que aparecen en las etiquetas de los alimentos que compra. La leyenda “Sell By” (en español “venderlo antes de”) impresa en los productos le dice al negocio o tienda cuanto tiempo tiene para vender este producto para ser vendido. Los consumidores deben comprar los productos antes de la fecha impresa “sell by” (en español “venderlo antes de”). Por otra parte la leyenda “Use By” o “Use Before” (en español “consumir antes de”) es la fecha límite en que el fabricante o procesador de los alimentos recomienda a los consumidores utilizar o consumir el producto asegurándose de su optimo sabor o calidad. Las leyendas “Use By” (en español “consumir antes de”) no están relacionadas con la seguridad de un producto sino que solamente se refiere a la calidad del producto.
Actitud Física en Familia... ¡Diviértase!

¡Elija estar en forma! ¿Alguna vez se ha preguntado cuánto tiempo pasa su familia mirando televisión, sentada frente a la computadora, jugando con videojuegos o haciendo algún otro tipo de actividades sedentarias como leer o coser? Haga la prueba y trate de aumentar la cantidad de horas que pasa por semana realizando actividades sedentarias. Se va a sorprender de cuánto tiempo pasa al día sentado. Trate luego de eliminar horas de su tiempo en el que está sentado. Utilice parte de ese tiempo para hacer algún tipo de actividad física.

Así Crean los Niños

Invita a los amigos de sus hijos a su casa y conozca a sus padres. Averigüe cuáles son sus alimentos favoritos y sus actividades físicas predilectas.

- Haga al menos una comida al día con su familia.
- Si no hay clubes de niños o gimnasios a los que sus hijos puedan ir para hacer ejercicio, ofrezca de voluntario para formar uno. Esta es una gran oportunidad para ayudar a su hijo a hacer amigos y a compartir experiencias y enseñanzas. Puede reclutar a su vecino o a los padres de los amigos de sus hijos para que le ayuden a organizar y comenzar un club de actividad física o pida informes a los agentes 4-H de algunas universidades.
- Diviértase y encuentre diferentes formas de jugar con sus hijos. Hay varias formas en las que puede comer, y hacer que la nutrición y el ejercicio sean divertidos todos los días de su vida.

Kangaroo Jump 7: Elecciones Para Una Buena Salud
Michigan State University Extension
Receta: Brownies con Piñón de Manzana

Ingredientes:
- 1 taza de azúcar morena
- 1/4 taza de margarina o manteca
- 2 huevos
- 1 cucharadita de vainilla
- 1 taza de harina no levadura (All-Purpose Flour)
- 1 cucharadita de cacao
- 1/2 cucharadita de polvo para hornear
- 1/2 cucharadita de bicarbonato de sodio para cocinar
- 1/4 cucharadita de sal
- 1/2 taza de nueces picadas (opcional)

Utensilios:
- Taza medidora para sólidos
- Cuencas medidoras
- Un molinillo o bol grande para realizar la mezcla.
- Cuencas para mezclar
- Pálpitos
- Placa para hornear de 9 pulgadas de diámetro.

Preparación:
1. Precaliente el horno a 350° F.
2. Engrosa con manteca la placa para hornear de 9 pulgadas de diámetro.
3. En el bol grande mezcle bien el azúcar con la margarina y los huevos.
4. Agregue la composición de manzana y la vainilla dentro de la masa y mezclelo hasta que quede uniforme. Espolvoree la harina, la cacao (cocoa), el cacao, el polvo para hornear, el bicarbonato de sodio para hornear y la sal. Mezcle muy bien. Agregue las nueces si lo desea.
5. Hornee entre 25 a 35 minutos hasta que al meter un palillo en el masa este salga limpio.

En Internet
Revise los siguientes sitios Web con sus hijos:

- CDC's Nutrition and Physical Activity Program: http://www.cdc.gov/nccdphp/dnpa/
- Governor’s Council on Physical Fitness, Health and Sport/Michigan Fitness Foundation: http://www.michigangfitness.org
- The President's Council on Physical Fitness and Sports: http://www.fitnes.gov
- U.S. Food and Drug Administration, "Guidance on How to Understand and Use the Nutrition Facts Panel on Food Labels": http://www.cfsan.fda.gov/~dms/foodlab.html

Kangaroo Jump 7: Elecciones Para Una Buena Salud
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