CRESST REPORT 747

Denise Huang
Deborah La Torre
Christine Oh
Aletha Harven
Lindsay Huber
Seth Leon
Sima Mostafavi

THE AFTERSCHOOL EXPERIENCE IN *SALSA, SABOR Y SALUD*

EVALUATION 2007–2008

DECEMBER, 2008

National Center for Research on Evaluation, Standards, and Student Testing

Graduate School of Education & Information Studies
UCLA | University of California, Los Angeles

The Afterschool Experience in *Salsa, Sabor y Salud* Evaluation 2007-08

CRESST Report 747

Denise Huang, Deborah La Torre, Christine Oh, Aletha Harven,
Lindsay Huber, Seth Leon, and Sima Mostafavi
CRESST/University of California, Los Angeles

December 2008

National Center for Research on Evaluation,
Standards, and Student Testing (CRESST)
Center for the Study of Evaluation (CSE)
Graduate School of Education & Information Studies
University of California, Los Angeles
300 Charles E. Young Drive North
GSE&IS Bldg., Box 951522
Los Angeles, CA 90095-1522
(310) 206-1532

The work reported herein was supported by grant number 021891 from Kraft Foods with funding to the National Center for Research on Evaluation, Standards, and Student Testing (CRESST).

The findings and opinions expressed in this report are those of the authors and do not necessarily reflect the positions or policies of Kraft Foods.

THE AFTERSCHOOL EXPERIENCE IN *SALSA, SABOR Y SALUD* EVALUATION 2007–2008

Denise Huang, Deborah La Torre, Christine Oh, Aletha Harven,
Lindsay Huber, Seth Leon, and Sima Mostafavi
CRESST/University of California, Los Angeles

Abstract

In the United States, there is an alarming trend toward obesity and inactivity among children. Minorities and economically disadvantaged children are at an even higher risk. According to the Centers for Disease Control and Prevention one in two Latino children will become diabetic. As a result, there is a dire need for tailored intervention programs that take into account cultural, dietary, and lifestyle issues of the Latino community. Kraft Foods has partnered with the National Latino Children's Institute and developed a healthy lifestyles education program for Latino families called *Salsa, Sabor y Salud* (Food, Fun & Fitness). The current study examines the effectiveness of the child-centered version of the *Salsa, Sabor y Salud* curriculum at three pilot programs in Los Angeles and Chicago. The results of the outcome evaluation revealed that the child-focused *Salsa, Sabor y Salud* program has made a positive impact in student's healthy behaviors. Positive impacts were also seen in the knowledge and healthy behaviors of the instructors. Furthermore, the *Salsa, Sabor y Salud* messages has reached parents and families of the participants through the students as they shared their knowledge and encouraged their families to adapt healthier lifestyles.

CHAPTER I:
INTRODUCTION

Although obesity has increased in all ethnic groups, the prevalence of obesity and many obesity-related risk factors is especially high among particular racial, ethnic, and socioeconomic groups. The Latino community in the United States has been disproportionately affected by the obesity epidemic (American Public Health Association, 2003), with Latino children and adolescents more likely to be overweight than their White peers (Hass et al., 2003). This disparity suggests the need for tailored interventions that take into account cultural, dietary, and lifestyle issues

In recognition of the problems associated with the increase in childhood obesity, Kraft Foods has partnered with the National Latino Children's Institute (NLCI) in developing a healthy lifestyles educational program for Latino families called *Salsa, Sabor y Salud* (Food, Fun & Fitness; SSS). The program focuses on improving awareness of habits leading to better nutrition and increased physical activity for Latino families with children under 12, and the program has proven to be beneficial. Results from a 2005 evaluation of the family-oriented program (Center for Prevention Research and Development, 2005) revealed positive outcomes with regard to increased nutrition and physical activity knowledge, improved nutrition-related behavior, attitudes and values, and increases in physical activity. Building on this success, a child-focused version of the program now has been developed, and its evaluation is the subject of this report. The following sections of this Introduction provide an overview of SSS and the evaluation questions that are the focus of the current report.

An Overview of the SSS Program for Families

SSS is a healthy lifestyles educational program designed for Latino families. Through the 8-session curriculum, families learn to change their daily routines and eating habits in small steps. The program seeks to help families to improve their eating habits and to make physical activity a daily part of their lives, both as individuals and as a family. The program is designed to be highly interactive, and includes food preparation and family-focused physical activities. Throughout the program, Latino traditions are honored—such as gathering the family for meals, *el paseo* (families strolling together), and involving the extended family in daily life.

The SSS program focuses on four key messages that help families make the choices they need to build healthier lifestyles. These messages are echoed throughout the curriculum:

- Eat foods from each of the food groups every day.

- Be sensible about portion size.
- Be physically active every day.
- Take small steps for success.

Furthermore, every session provides experiences and tips that promote: (a) healthier food choices compatible with the lifestyle and cuisine of Latino families, (b) fun physical activities, (c) discussion on the concept of energy balance,[1] and (d) cultural heritage and lifestyle connections to wellness.

The Child-focused SSS Program

Although it is important to involve families in overweight intervention programs (see Teufel et al., 1999), it is also clear that young children need to acquire the knowledge and motivation to make wise choices regarding nutrition and healthy habits throughout the course of their life. The rapid growth and changing dynamics of afterschool programs provide a unique platform in which to influence the development of healthy habits for many children. For example, currently, more than 350,000 of California's elementary and middle school students attend afterschool programs 3 hours a day, 5 days per week (California Nutrition Network, 2005). With the implementation of Proposition 49, the *After-school Education and Safety Programs Act* (2002)[2], and continued federal 21st Century Community Learning Center investments, this figure is likely to reach 750,000 in coming years (California Nutrition Network, 2005). Thus, afterschool programs are well positioned to play an important role in child-focused, nutrition education programs.

With this foresight, the SSS curriculum has been adapted by Kraft and the NLCI to be used with children in afterschool programs. The Los Angeles Better Educated Students for Tomorrow (LA's BEST) in Los Angeles, Association House of Chicago and Centro Communitario Juan Diego (CCJD) in Chicago are pilot programs in this effort. The purpose is to employ a health-centered, culturally relevant, intentional approach to nutrition education in order to help students develop healthy eating habits, make physical activity a part of their daily lives, and encourage them to be advocates for these habits in their schools, families, and communities.

[1]The National Cancer Institute (2004) defines energy balance as "calories consumed compared with those burned."

[2]As mandated by Proposition 49, funding for afterschool programs in California increased from 121 million to 550 million during the 2006-07 school year.

Evaluation Questions

The purpose of the study reported here is two-fold: first, to conduct a process evaluation to describe how functional the SSS curriculum is after the adaptation from family-centered to student-centered. Secondly, to conduct an outcome evaluation in order to examine the effectiveness of the SSS program's influence on students' knowledge, attitudes, and behaviors towards a healthier lifestyle. Specifically, analyses sought to address the following evaluation questions:

1. How well has the program been adapted for use in a child-focused setting?
    - What adaptations "worked," what adaptations "did not work?"
    - Is the program being delivered as planned by staff?
    - Whether or how are the staff and students engaged in the program functioning?
2. What impact has the program had on student and program staff participation?
3. What is the reach of the program, as implemented with children only?

This report is organized as follows: Chapter II presents a brief literature review. Chapter III discusses the study design and methods. Chapters IV, V, and VI present the results of the process evaluation and outcome evaluation of the LA's BEST sites. Chapter VII includes the case studies of the two Chicago sites. A discussion of the qualitative and quantitative findings from the three participating programs and concluding comments about the study are presented in Chapter VIII. Finally, a detailed description of the LA's BEST afterschool programs is provided in Appendix A.

CHAPTER II:
LITERATURE REVIEW

In the United States, there is an alarming trend toward obesity and inactivity among children. Hedley and colleagues (2004) reported that when comparing two samples of children aged 6–19 from 1999–2000 and 2001–2002, there were no significant changes in the prevalence of being at risk for overweight or being overweight. Among the children in these samples, 31% were at risk for being overweight and 16% were overweight. Furthermore, research shows that today's youth are not only susceptible to the chronic condition of type II diabetes, but they are also at risk for high cholesterol and high blood pressure (American Academy of Pediatrics, 2004). According to The Centers for Disease Control and Prevention (as cited in CBS News & Associated Press, 2003), it has been predicted that one in three children born in the United States in 2000 will become diabetic unless they change their eating and physical activity habits. This message is alarming because childhood obesity typically leads to adult obesity, which can contribute to more health-related problems, including premature death (American Academy of Pediatrics, 2004).

Minorities and Overweight

In the year 2000, Latino's constituted the largest racial/ethnic group of children in California (State of California Department of Finance, 2007; as cited by Flores et al., 2002) as well as the largest minority group of children in the United States (U.S. Census Bureau, 2002). Furthermore, the State of California Department of Finance (2007) projects that by the year 2020, more than half of those 19 years or younger in California will be Latino, outnumbering White children by approximately 3 million.

Along with the increase in population, Latino children are suffering from increased health-related issues. This includes mental health, oral health, health access and quality, and obesity (Flores et al., 2002). According to Hernandez (2007), the childhood obesity rate among Latino children has consistently increased during the last four decades. Latino Americans are disproportionately affected by overweight and obesity relative to other ethnic groups partly due to increased sedentary behaviors. For instance, Giles-Corti and Donovan (2002) found that physical inactivity is especially prevalent among Latino children, and as a result, type II diabetes is twice as likely to develop in Latino versus White children. The Centers for Disease Control and Prevention (as cited in CBS News & Associated Press, 2003) also predicts that one in two Latino children will become diabetic (roughly 53% of girls and 45% of boys). Latino boys are the most overweight and Latina girls are the second most overweight racial/ethnic group among American children (Flores et al., 2002).

Furthermore, the Latino community suffers from higher rates of cardiovascular disease and higher mortality from hypertension (Juarbe, 1998).

Influence of Sedentary Activities

Another factor influencing the overweight status of children is the sedentary activity of watching television. Rose and Bodor (2006) have stated that overweight status is an imbalance between energy intake and expenditure. For instance, they found that low activity levels and excessive television watching were strongly related to overweight status. Television watching has been reported by many as being one of the main causes of child-related obesity and children becoming overweight. For instance, Cherin (2008) found that younger and older elementary age children (5–11 years) were equally influenced by television commercials advertising food. They reported that exposure to food commercials led to an increase in children's preferences for the advertised products. Thus, if television commercials are constantly advertising foods high in calories, such as fast food options, then children are more likely to eat and request those food choices.

Jordan (as cited by Jordan and Robinson, 2008) hypothesized four mechanisms through which television viewing can lead to children being overweight. It was stated that television viewing leads to: (a) A lack of energy and decreased metabolic rate. (b) Displacement of physical activity (television viewing is a sedentary activity; it displaces energy-burning pursuits). (c) Poor food choices and requests due to food advertisements (often foods high in calories and low in nutritional content are advertised). (d) Eating while viewing television.

Given these findings, Rosenbloom, Joe, Young, and Winter (1999) suggest the need to develop behavioral and dietary programs to effect long-term, health-related changes and to prevent obesity among children and adolescents, particularly among minority populations. Health intervention programs such as SSS spread an important message about developing and maintaining a healthy lifestyle, to a population that needs it most. As stated earlier, 350,000 of California's elementary and middle school students participate in afterschool programs 3 hours a day, 5 days per week (California Nutrition Network, 2005). Thus, afterschool programs are a potentially important channel to promote healthy lifestyle changes and habits.

Child-Focused Health Education Programs

It is important to note that health and nutrition education is not new to afterschool programming. Research has shown that afterschool programs have a history of promoting health and nutrition interventions for youth (see Ritchie et al., 2001). Grounded in scientifically-based research and practical experiences, Fletcher, Piha, and Rose's *Guide to*

Developing Exemplary Practices in Afterschool Programs (as cited in Center for Collaborative Solutions, 2005) delineates six essential practices for implementing a successful health program during afterschool hours. These include:

- Purposeful program development.
- Integration of nutrition and physical activity with youth development principles.
- Provision of meaningful experiences that integrate nutrition and physical activity with core activities.
- Collaboration of school, parents, and community.
- Creation of outreach and education that increase ways to strengthen food security for low-income families.
- Provision of adequate funding to support program quality and financial sustainability.

These essential practices echo the ways in which afterschool programs may help to prevent obesity, as espoused by Judy Nee (2006), president and CEO of the National After-School Association. In general, Nee (2006) supports the idea that child-focused, nutrition education programs should:

- Focus their attention on the whole child, by providing a variety of activities for cognitive, physical, and social development.
- Be health-centered rather than weight-centered and maintain cultural sensitivity.
- Limit opportunities for passive, sedentary activities.
- Include nutrition education and activities, and model with healthy snacks.
- Increase the provision of and participation in physical activities.
- Become more intentional about the content and delivery of physical activities.

Numerous studies provide additional support for these expectations and the promotion of healthy habits in afterschool settings. For instance, the 8 Habits of Healthy Kids (Strang Cancer Prevention Center, 2004) is a curriculum widely used in afterschool programs to remind students of healthy practices that include:

- Being physically active at least 1 hour each day
- Limiting their use of television and video games to no more than 1 hour each day
- Eating smaller amounts of food
- Drinking water instead of soda
- Eating a total of 5 or more servings of fruits and vegetables each day
- Eating less fast food (no more than once a week)

- Snacking on healthy foods and eating less junk food and sweets
- Switching to low-fat (1% or less) dairy products

Another interactive curriculum to improve afterschool students' dietary behaviors is a program initiated by Morris, Koumjjian, Briggs, and Zidenberg-Cherr (2002) called *Nutrition to Grow On*. They incorporated a vegetable garden into their nutrition education program, teaching students about healthy eating habits by allowing them to plant and harvest their own vegetables.

All these programs share effective practices that are complementary to each other, and present important variables in the evaluation of child-focused, health education programs in afterschool settings. Using these indicators as a guideline for instrument development, this evaluation study examines the effectiveness of the SSS adaptation for child-centered programs, and the programs' impact on participating students and afterschool staff. A multi-method approach combining qualitative and quantitative strategies will provide useful information for continuous program improvement and gauging immediate programmatic outcomes. The following chapter presents the study design and methods.

CHAPTER III:
STUDY DESIGN AND METHODS

This study employed a community participatory approach whereby the National Center for Research on Evaluation, Standards, and Student Testing (CRESST) collaborated with program staff and key personnel from the SSS program. The following describes the resulting study design, research procedures, and data analysis strategies that resulted from this collaboration. As noted in the Introduction, these methods were intended to examine elements of program process as well as impact:

1. How well has the program been adapted for use in a child-focused setting?
   - What adaptations "worked?"
   - What adaptations "did not work?"
   - Is the program being delivered as planned?
   - Whether/how are the staff and students engaged in the program functioning?
2. What impact has the program had on student and program staff participation?
3. What is the reach of the program, as implemented with children only?

Study Design

A multi-method approach combining qualitative and quantitative research methodologies was used. Surveys were developed and administered to students and staff from a convenience sample of 22 program sites and 20 control sites using a pre-test and post-test design. Qualitative instruments were also developed. Observations and interviews were conducted midway through implementation of the 8-session curriculum at the 22 program sites.

The main study included 20 LA's BEST sites implementing SSS and 20 matched LA's BEST sites that did not have the program. At these sites, data collection took place over two cycles. At the program sites, a cycle was defined as a complete administration of the 8-session curriculum (i.e., approximately 4 weeks). Data collection at the matched control sites also took place across two cycles with quantitative instruments being administered across a similar time span. A propensity matching method was employed using student demographic variables to establish the program sample and the matched control sample. Once this was completed, descriptive statistics were calculated and an analysis of covariance (ANCOVA) design was employed to assess program impact on student knowledge, attitudes, and behaviors concerning nutrition and physical activity. Staff surveys and observation protocols were analyzed using descriptive statistics. Interviews and focus groups were

transcribed and were then analyzed using a grounded theory approach (Glaser & Strauss, 1967).

Because the study design did not include matched control sites for the Chicago programs, results from Association House of Chicago and CCJD were included as case studies. Unlike the main study, data collection at these sites took place over one administration cycle. Furthermore, quantitative analysis was limited to descriptive statistics due to the small sample size.

Instrument Development

Instruments were developed by CRESST to measure the implementation and outcomes of the SSS curriculum in child-focused settings. The community partners, program staff with prior experience implementing the curriculum, and Hispanic/Latino members of the research team reviewed all instruments. Once this was completed, revisions were made to reflect cultural relevance, themes from the curriculum, and readability. The following describes each instrument.

Student Surveys

The student surveys were developed to measure the impact of the SSS program on student participants. The survey was composed of two parts. Part I included sections on demographics, knowledge and awareness, and communication about nutrition and physical activity with parents and family members. The second part included sections to assess student attitudes as well as healthy and unhealthy behaviors. Identical forms were used for all survey administrations with the exception of the post survey for program students, which included an additional section on satisfaction with the SSS program (see Appendices B & C). Both English and Spanish versions of the surveys were prepared. It should be noted that all questions were designed for the original target population of students in Grades 3–5. Unbeknown to the researchers, younger students were recruited to the SSS program, and the instruments were administered to both primary and upper grade students in order to include all potential participants at the program sites. Results from the reliability analyses for each of the student scales are reported in Chapter VI.

Staff Surveys

The staff surveys were developed to assess the implementation and perceived impact of the SSS program on staff, students, and non-participants. The staff surveys included sections on general background information, staff training, program environment, activity and lesson content, program impact, and student engagement. The protocol for use with staff at the

control sites was adapted to include the term "health" rather than "*Salsa, Sabor y Salud*." Furthermore, nine of the sub-questions specific to the implementation of the curriculum were not included in the protocol for the control sites (see Appendices D & E).

Focus Group and Interview Protocols

Two different protocols were developed to elicit comments from participants at the program sites about the implementation and impact of the SSS program on staff, students, and non-participants. The student focus group protocol included sections on background information, activity and lesson content, program environment and satisfaction, and evidence of impact. The staff interview protocol was similar, with sections on general background information, activity and lesson content, networks and resources, student engagement, and evidence of impact (see Appendices F & G).

Observation Protocol

The observation protocol was developed to document activities and behaviors at the program sites. The protocol also served as a source to triangulate responses from the survey, interview, and focus group data. It included sections on activity and lesson content, child engagement, program environment, and evidence of impact (see Appendix H).

Program Selection and Recruitment of Participants

Qualitative and quantitative research methodologies were employed at 22 sites implementing the child-focused adaptation of the SSS curriculum. This included 20 LA's BEST afterschool programs in Los Angeles and two community-based programs in Chicago (i.e., Association House of Chicago and CCJD). In addition, a comparison group of 20 LA's BEST afterschool programs was selected using propensity score matching based on demographic and prior achievement variables (i.e., gender, race, age, free lunch, and California Standards Tests [CST] scores). Propensity score matching was used as the strongest possible alternative available to examine the impact of the SSS program on student knowledge, attitudes, and behavior, given that it was not possible to implement a randomized, experimental design.

The research team obtained permission from the University of California, Los Angeles (UCLA) Office for Protection of Research Subjects concerning the appropriateness of the study procedures and instruments (approved on April 2, 2007 by the UCLA Human Subjects Protection Committee). All three programs were recruited by the research staff, and permission was obtained from the program directors and school principals to survey students and staff members, and when appropriate to conduct focus groups, interviews, and

observations at the sites. Finally, the afterschool programs helped the research staff to distribute and collect staff consent, parent permission, and student assent forms. The following table shows the specific number of participants who were recruited at each program.

Table 1

Study Participants by Afterschool Program and Role

Participants	Surveys (Pre and/or post)	Interviews and focus groups
Program staff		
Association House of Chicago	1	1
CCJD	2	2
LA's BEST	21	12
LA's BEST Control Sites	81	n/a
Students		
Association House of Chicago	21	10
CCJD	11	3
LA's BEST	671	116
LA's BEST Control Sites	1863	n/a

Note. Table includes all participants who had consent and participated in data collection. CCJD = Centro Communitario Juan Diego, LA's BEST = Los Angeles Better Educated Students for Tomorrow

Data Collection Procedures

The following describes the procedures used to survey, observe, and interview staff and students at the afterschool sites.

Survey Administration

Staff and students at the Chicago sites were each surveyed prior to and following the program during the period of the study. The surveys were delivered to the sites along with the consent forms. Program staff administered the instruments during the operation of the afterschool programs. Pre surveys and consent forms were returned to the CRESST researchers at the time of the site visits and post instruments were returned via mail.

For the main study, surveys were administered over the course of two cycles of the SSS curriculum. The first cycle for each site took place during the spring of 2007 and the second

cycle took place during the summer or fall of 2007.[3] Students who participated in both cycles of the program were only surveyed once, before and after the first cycle, and likewise for staff. Pre and post versions of the instruments were completed over a similar period at the control sites. Staff and student instruments were administered by members of the CRESST research team or by afterschool program staff trained by CRESST. The LA's BEST operations office helped to coordinate the collection of any instruments administered by program staff.

Observations

Observations were conducted mid-cycle at each of the 22 program sites during 2007. After coordinating with the program directors, CRESST researchers visited each of the program sites and conducted a 1-day observation of the SSS program. In most cases, this involved research staff observing one lesson taught to one group of students. An exception was made at sites where program staff taught multiple groups during the same administration cycle, such as one primary grade group and one upper grade group. In an effort to observe program staff with different levels of experience, observations were distributed across both cycles.

Interviews and Focus Groups

Interviews and or focus groups were conducted at each of the 22 program sites during 2007. All interviews and focus groups were held during program hours and were scheduled to coincide with the mid-cycle observations. Conversations were captured using audio tapes or digital voice recorders.

Data Analysis

The following describes the strategies and procedures used to analyze both qualitative and quantitative data sources.

Qualitative Data Analysis

All interviews and focus groups were audio taped, transcribed, and analyzed using Atlas.ti qualitative data analysis software (Muhr, 1997). Based on the grounded theory approach (Glaser & Strauss, 1967) data were analyzed on three different levels (Miles & Huberman, 1994). At the first level of analysis, data were categorized according to constructs identified in the literature on nutrition and physical activity. CRESST researchers developed codes independently, after which the research team met to develop the final list of codes and

[3] This depended upon whether the program was offered year round or based on a traditional school schedule.

their definitions. Based on the established themes and codes, members of the research team coded sample data for each protocol and deliberated over any differences in coding agreement. At the second level of analysis, cases were compiled to identify emergent themes by group (i.e., program staff, primary students, and upper grade students). This involved the use of constant comparison methods (Strauss & Corbin, 1990) in an iterative process. Finally, at the third level of analysis, cross-case analyses were conducted by program.

Quantitative Data Analysis for the Main Study

In order to examine the effects of the SSS program on student participants, a quasi-experimental ANCOVA design was employed. In social science, randomized controlled experiments are often difficult to achieve due to study design and or ethical issues; subsequently quasi-experimental designs are gaining widespread use in order to explore causal interpretations.

For the main study, as noted earlier, a propensity score matching approach was used to constitute the control group. This was done in two steps. First, control sites were identified that shared similar demographic and educational achievement characteristics as those at LA's BEST sites administering SSS (i.e., gender, race, age, free lunch, and CST scores). Second, students within the control sites were matched to students being served in the program. In order for a program student to be matched by a control student, it was necessary for them to complete both pre and post versions of the surveys and to have complete demographic data.[4] A propensity matching method was employed matching on students' grade level, gender, and language spoken both by the child and by the adults in the home. Descriptive statistics (i.e., frequencies, means, and standard deviations) were computed to demonstrate how closely the resulting control group resembled the students served by the SSS program with regard to the aforementioned demographics. The resulting samples included 384 students in the program sample and 384 students in the control group for a total of 768 cases.

Once the student samples were established, a procedure was used to account for missing data from the surveys. When a scale included missing data, most student cases included problems with less than five of the items. For example, on the knowledge scale there were 54 cases from the pre survey and 49 cases from the post survey with some missing data. Of these, only two of the pre survey cases included missing data on five or more items, and all of the post survey cases included less than five items with missing data. Because

[4] Of the 671 students who participated in data collection at the LA's BEST program sites, 504 completed all four instruments. Additional students were lost from the sample due to missing demographic data, which prevented matching to the control group.

missing data can result in a biased sample, and the number of missing items within scales was generally small, the logical choice was to estimate the missing data in order to ensure a more representative sample. This was done using an Expectation-Maximisation (EM) imputation that makes use of maximum likelihood estimation to impute the missing data, a procedure considered preferable to imputation by multiple regressions.

Finally, an ANCOVA design was employed to compare student outcomes between the matched control sample and the program sample. Factor scores based on items from the post survey served as the outcome variables for the different scales (i.e., student knowledge, student attitudes, healthy student behavior, unhealthy student behavior, and reach of the program). Factor scores based on items from the pre survey served as covariates (control variables) for the scales and additional factors were included to determine if there were any differences across the grade levels or two administration cycles. Grade levels were separated into the categories of primary (i.e., Grades 1–2) and upper (i.e., Grades 3–5).

Descriptive statistics were used to analyze the observation and staff survey data for the main study. Questions were grouped to address the specific evaluation questions. Furthermore, this data served to triangulate the information obtained from the student surveys and the qualitative data.

Quantitative Data Analysis for the Case Studies

Descriptive statistics were used to analyze the observation and survey data for the Chicago sites. Because 11 students completed all four instruments, questions designed to assess the impact of the program were not analyzed.[5] Questions that were analyzed were grouped to triangulate with information from the interviews and focus groups.

In the next chapter, the case studies for Association House of Chicago and CCJD in Chicago are presented.

[5] See Van Belle and Millard (1998) or Van Voorhis and Morgan (2007) for more information about minimum sample sizes for statistical analyses.

CHAPTER IV:
PROCESS EVALUATION

Evaluations serve different purposes and call for different strategies at various stages of the program. For new and ongoing programs, such as SSS, process evaluation helps to determine the degree to which programs are effective, and can provide information to increase the efficiency of program administration. This type of evaluation allows researchers and practitioners to monitor program progress towards goals and to make continuous, informed improvements as necessary (Thompson & McClintock, 2000). This approach can provide information to increase the efficiency of program administration.

The following chapter presents the results from the process evaluation of the LA's BEST sites. That is, this chapter will explore how well the SSS program has been adapted for use at these child-focused settings. This includes results from the analysis of the staff interviews, student focus groups, and observations. Applicable results from staff and student surveys will also be presented. In order to provide more clarity to the analyses, the results will be presented by topic: (a) staff training and program implementation, (b) adaptation of the SSS program, and (c) student perspective on how the program works. Discussion of the results will be presented in Chapter VIII.

Staff Training and Program Implementation

The readiness of the program staff and the accuracy of implementation often determine the success of a program. In order to assess the delivery of the program at the LA's BEST sites, SSS staff were interviewed and surveyed about their preparation and readiness to implement the curriculum efficiently. More specifically, this section presents results concerning (a) staff training and experience, and (b) program fidelity.

Staff Training and Experience

The SSS staff reported an average working experience of just over 3 years with LA's BEST. Two-thirds of the staff members reported completing a high school or General Educational Development Test (GED) degree and were attending college at the time of the interview. Furthermore, about 17% of those interviewed already had received their bachelor's degree. All of the program staff interviewed were Latino or Latina and fluent in Spanish. Aside from the LA's BEST mandatory trainings (including CPR and first aid certification), staff reported that they participated in multiple health training courses during high school or college.

Specific to the SSS program, staff described their responsibilities as planning, preparing, and teaching the curriculum. Some of the preparation involved purchasing fresh fruits and/or vegetables and strategizing to integrate the physical activity component into their lesson plans. All program staff appeared to share the vision of the SSS program goals. For example, one staff member commented that she "teach[es] kids about healthy snacks, decreasing obesity and eating the right foods." Another staff member mentioned, "My goal for them is to know when to eat and what types of foods, and not to eat so many greasy foods." Overall, the program staff who participated in data collection were clearly able to articulate their job responsibilities and enthusiasm in teaching the curriculum.

Program Fidelity

Program fidelity requires adequate training for staff members so that they can adhere to the program principles and deliver the program successfully. According to Latessa (2003), this includes issues such as context, compliance, and competence (see Table 2).

Table 2

Issues of Program Fidelity and their Key Questions for the Study

Content area	Key question
Context	• Did staff members receive adequate training to implement the curriculum? • Are there enough resources (i.e., materials, equipment) to carry out the program?
Compliance	• Is the program being delivered as planned by staff? • Are the essentials of the curriculum being presented to the students in an effective way?
Competence	• Do the staff members value the program? • Are the staff members efficacious in delivering the program?

The following section uses the framework of program fidelity to explore issues of training and implementation specific to the SSS programs at the LA's BEST sites.

Context – Training

Prior to the implementation of the program, LA's BEST staff participated in a 1-day training conducted by the NLCI. Over the course of the day the trainers provided an overview of the SSS curriculum, demonstrated sessions from the curriculum guide, and led staff in practice sessions where they worked in groups to plan and implement activities from the curriculum. Staff from the LA's BEST operations office also led a hands-on session including several physical activities from their BEST Fit program. Both the NLCI trainers

and the staff from the LA's BEST operations office emphasized tips for implementation throughout the training.

The SSS trainings appeared effective in preparing afterschool staff for the program delivery. For instance, one staff member noted that the training was fun, making her optimistic that the curriculum would be fun for the students:

> I think the training was really fun. Most of the trainings are very boring. We had so much fun on the racing course. They put the hula-hoops on the floor and you do the basket. It was really fun. I thought it would be fun for the children.

Two other staff members noted that the completeness and straightforward nature of the curriculum helped them to feel more comfortable with implementing the curriculum:

> I think the lessons are pretty straightforward. I'm able to implement them with all the children without having any difficulties.

> It was kind of scary at the beginning because I didn't know what I was getting into or be doing, but after I read everything, and I see everything is so planned out, it's a really good program. Everything is set for you. There are no questions to be asked. Everything is answered for you, so the program is really good.

In addition to the NLCI training, the SSS staff members were provided with training in two components of BEST Fit, an enhanced healthy lifestyles program offered to children and their families by the LA's BEST operations office. It is under the umbrella of BEST Fit that the SSS program is offered to the LA's BEST sites. Prior to the first cycle (e.g., complete administration of the 8-session curriculum) program staff were trained in *Sports 4 All*, a program focusing on the physical skills needed for sports participation. In addition, between cycles, program staff members were trained in a physical activity using hula hoops called *Hoop Hop*. Staff from the LA's BEST operations office, certified as trainers for SSS, also provided training between cycles for staff new to the program sites.

Context – Resources

Kraft and NLCI provided all 20 LA's BEST sites, that had staff participate in the training, with the curriculum kit. The kit included a coordinator's handbook, separate facilitator's guides for the different potential audiences (e.g., families, 3- to 7-year-olds, and 8- to 12-year-olds), a master CD with handouts, music CDs, posters, and print materials for games and activities. The LA's BEST operations office also provided the sites with equipment for the physical activities (i.e., balls, parachutes, and so forth), books with

additional activities to supplement the curriculum, and gift cards to purchase supplies. Additional gift cards were available to staff members upon request.

Program staff members were asked in interviews and surveys about the adequacy of the resources they received. On the survey, they were asked to rate whether they received adequate support and resources to implement the curriculum. Using a 5-item scale, from 1 (*strongly disagree*) to 5 (*strongly agree*), the 12 staff members who completed a post survey provided an average rating of 4.5. This indicates that these staff members felt satisfied with the support and resources they received. Program staff members were also asked during the interviews about whether or not they were provided adequate resources to carry out the program successfully. Over half of those interviewed responded that they had all the resources they needed. One staff member said:

> They gave me a lot of things to do. It's just me taking the time and having that in my lesson plans. They gave me a lot of equipment. They gave me a case where I have a lot of reading for a certain age group. They gave me everything. I'm not lacking.

For those who mentioned a desire for additional resources, the most requested was gift cards to purchase food for hands-on nutrition activities. Apparently, some of the program staff were unaware that they could request additional cards and purchased food supplies with their own money:

> More money so I could use it with the children. I think they only gave me certificates for $10. After the first two days a lot of the… produce is not cheap ... I used my own money to go ahead and get things so the children could learn more.

Two other interviewees mentioned needing additional program staff at their respective sites. They both perceived that their classroom was more manageable when they had extra help; however, at the time of the interviews, neither had extra help available to them. Most of the program sites had only one staff member teaching the curriculum, although some sites did have multiple staff trained in the curriculum. In some of these cases program staff taught different groups of children during the same cycle rather than teaching SSS together. Observations of the 20 sites confirmed that most of the sites had less than two staff members teaching the curriculum ($M = 1.4$).

Program staff also voiced other issues that they had with resources. Those at a couple of sites noted that they had limited space for implementing the activities. Most notably, program staff at some of the sites had space issues because they were not allowed to hold eating activities inside the day-school classrooms. Another staff member voiced that she would like more time so that she could include field trips in her implementation of SSS.

Overall, the program staff felt that they received sufficient resources to implement the curriculum. When resources were requested, they focused on access to gift cards for purchasing supplies, staffing, and space. It should be noted, though, that policies concerning the purchasing of supplies should be clearly voiced to program staff.

Compliance – Lessons Delivered as Planned

The SSS kit included a handbook and curriculum guides. The handbook provided background information about the program and recommendations for coordinators on how to implement SSS at their organization. In contrast, the facilitator's guides provided lesson plans and information necessary to implement the eight sessions.

Each session within the curriculum was organized into a 5-step lesson plan. With the exception of the first session, this included: (a) an introduction; (b) a review of past concepts; (c) one or more hands-on nutrition activities; (d) at least one physical activity; and (e) a discussion of the activities and what was learned during the session. Despite this, observations at the 20 LA's BEST sites revealed that many of the program staff did not always implement all five of these instructional features. For instance, only six sites had at least one observer agree that they observed a 5-step lesson. Nutrition activities (n = 16) were observed more frequently than physical activities (n = 13). Each of the other lesson plan features was observed 14 times during the site visits. In part, the observations may have been effected by the data collection procedures, with sites each being observed once. That is, the number of observations reported for the lesson features does not take into account sessions that were taught over the course of multiple days or when activities were cancelled because of outside issues such as bad weather. Interviews with program staff support the finding that hands-on activities were the most employed session feature (93%). Furthermore, some of the program staff interviewed indicated that the review and discussion features were skipped because of student boredom.

Four key messages concerning healthy lifestyles were integrated throughout each session in the curriculum. These included: (a) eat foods from each of the food groups every day; (b) be sensible about portion size; (c) be physically active every day; and (d) take small steps for success. Both observation and interviews with staff support that these messages were consistently emphasized at the LA's BEST sites. More specifically, the observational data showed that over two-thirds of the sites delivered all four key messages. For instance, 16 of the 20 program sites emphasized the first two messages concerning food groups and portion size. Seventeen of the program sites were observed to emphasize the third key message about physical activity. The least observed message was *take small steps* with at

least one observer noting it being evident at 14 program sites. Results from the staff surveys lend further support to the observation data. That is, all 12 program staff members who completed a post survey agreed that they covered content about food groups, daily activity, and the development of daily habits. Furthermore, all but one of these staff members agreed that they taught on eating foods in moderation.

Compliance of the program staff to the curriculum varied at the LA's BEST sites. Based on the observations and the interviews, it appears that most of the sites implemented the hands-on activities and emphasized the key messages concerning food groups, portion size, and daily activity. Less emphasized was the key message of changing habits through small steps. Furthermore, some staff indicated that the review and discussion features might be boring for the students. As one of the staff members summed up: "I use [the SSS curriculum guide] as a key map for my lesson plans."

Compliance – Lessons Delivered Effectively

The observation data revealed that program staff made use of a variety of teaching strategies while implementing SSS. That is, observers noted the use of two or more teaching strategies at 18 of the program sites. Furthermore, four of the sites were considered to have used all seven strategies included on the observation protocol (see Appendix H). Across sites, the most commonly used strategies were discussion and hands-on activities (n = 18 and n = 19, respectively), teaching strategies predominant in the curriculum guides. Interestingly, the least observed teaching strategy was the use of lecture (n = 8).

Results from the staff surveys lend support that staff mainly implemented the teaching strategies emphasized in the curriculum guides. That is, all 12 of the staff who completed the post survey stated that they used discussion when teaching SSS. Furthermore, 10 of the staff indicated that they used hands-on activities and 8 indicated that they used grouping strategies. In contrast to the observations, over half of the staff members post surveyed stated that they did use lecture when implementing the curriculum.

Data collection revealed that the sites were fairly effective in terms of keeping students engaged during SSS. Engagement was considered high (80% or more of the children engaged) at 13 of the program sites and mixed at 7 of the sites. Furthermore, none of the sites were rated as having low engagement (80% or more of the children off-task) during the observations. More specifically, observations and staff post surveys revealed that engagement appeared the highest when children were given the opportunity to listen/watch or participate in the hands-on segments of the curriculum. The staff who completed the post survey also indicated that students were only sometimes engaged when asked to write or read

during a session (M = 3.00 and M = 3.42, respectively). Furthermore, staff indicated that students were sometimes to frequently engaged when participating in the introduction or review portions of the session (M = 3.75 and M = 3.58). Both the observations and staff surveys indicated that off-task behavior was limited.

Most of the sites also appeared effective in terms of whether children were able to understand the activities. That is, observers at 13 sites felt that the children who participated in the session they observed understood the lesson. Conversely, observers at five sites were not sure if the lesson was understood, and the observer at one site felt that the lesson was not understood. One site did not receive a rating for this observation question.

Compliance of the program staff concerning the effective delivery of the curriculum was strong at many of the LA's BEST sites. Observations and staff surveys revealed that almost all of the sites made use of multiple teaching strategies, with an emphasis being placed on the strategies from the curriculum guide (e.g., discussion and hands-on activity). Engagement also appeared high across the sites when given the opportunity to listen, watch, or participate in a hands-on manner. Less clear was whether the lessons observed were understandable for the children who were participating.

Competence – Staff Efficacy

In general, the staff seemed to have high efficacy in delivering the program. That is, they seemed to feel well connected to their students and the understanding of their needs, and seemed knowledgeable about the principles of the SSS program. This enabled staff to induce adaptations to heighten student interest without altering the principle messages that the SSS curriculum intended. Many staff members reported adapting a number of activities according to students' interest, as well as introducing students to new snack ideas to reduce boredom. As an example, one program staff member prepared a snack that consisted of cottage cheese and peaches, to which the students replied, "We don't like the white stuff." The students were then instructed to mix the items together, to which they then replied, "Wow, it's really good." The program staff member explained, "I have to trick them. I have to do different things…I use the snacks themselves." Another program staff member added: "I think we just have to bring in the new activities, do it in different ways, do something different…Kids get tired of doing the same thing all over again…we'll try something good a couple of times and then try something different." Therefore, trying new activities or presenting material in a different way helped to maintain students' interest. Furthermore, a program staff member discussed how he or she used music to capture students' interests. The program staff member stated, "[I] had the kids listen to music during physical activity to get more into it." Overall,

program staff were creative in implementing the lessons in order to increase student interest in healthy habits. By making slight changes to snacks and activities, student interest and engagement could be increased and maintained.

Many of the program staff described how they would determine their activity choices based on what might motivate their students. One program staff member said,

> A lot of [the students] like soccer. We have the Mexican-American. They're passionate about soccer. So I try to think about that and try to focus on their favorite player. 'You're favorite player is this guy. You know that he does eat these kinds of fruits, right? That's why he's in there. That's why he's that kind of an athlete.' They start thinking, 'If he's doing it then I could do it, too.'

Another program staff member described how he or she would negotiate with students about the activities to keep the students engaged. The program staff member stated that, "I would have a kickball and there'd be three or four that didn't want to participate. I'd tell them to do it. I'd tell them we would *do something they want* to do next so that we're all doing the same thing." A third program staff member stated how her kindergarten students liked stories, so she used stories to introduce new topics or ideas for discussion:

> I'm thinking what they like to do. We don't want to bring something in that they don't like. If we start just talking about fruits and vegetables they'll lose interest right away. 'Oh, I don't want to learn about that.' So once we start bringing in some other type of character or something that they like they actually start paying attention.

Many program staff members stressed how easily students became bored with lectures or direct instruction. They also noticed that discussion-based lectures yielded more positive results than lecturing alone:

> I think once we start talking together about it [topics not discussed by regular day school teachers] they don't look at us like teachers. They look at us as people, part of them, like friends. We pay attention more to our friends than we do to our lectures in class. They actually communicate with each other. They really [get] into it. It's fun.

Another program staff member emphasized how he or she connected with students by exchanging life stories and experiences. The program staff member stated the following: "I'll tell them stories, and they'll tell me their stories. That's when they start getting into the lesson plan." This was a great way to connect with students on a personal level, in order to increase student interest and engagement. A third program staff member mentioned that he or she discussed the importance and benefits of healthy eating and living with his or her students, "I tell them it's really important for their growth. That they can get stronger, that

healthy eating will help you to live longer, that you won't be in bad shape. And a lot of them are responding highly to that." These program staff members found new ways to connect with students, thereby increasing their active participation in the lessons. This also raised the students' energy levels, and resulted in more student inquiries. Through active participation, it was more likely that students could internalize the messages of healthy lifestyles, and induce changes in their personal and family lifestyles.

Competence – Staff Perceived Value of the Program

Most of the program staff interviewed agreed that the SSS program is a needed program that provides important knowledge and messages to students and families. Following is a quote that exemplified the sentiment:

> Well, just that it is very important to continue the program, to continue the program in a community where people don't know that much about these things—the people can understand and the people can have options to make healthier decisions and have healthier lives, because with the experience I have had with *SALSA*—they have tried, the people have made changes, to buy more vegetables, more fruits. But with the little change that they can do and that their resources permit, they are making changes. They know what it means to be healthier, or what it means to become healthier in the future. This is why I think that it is important.

Many of the program staff members also realized that students viewed them as role models. One program staff member even pointed how she started to live a healthier lifestyle and even lost weight during the time she was implementing the SSS curriculum. In this case, the program staff member connected with students by discussing her lifestyle change with them and the importance of being healthy. Another program staff member seemed to take his status as a role model seriously, he stated the following: "Well, the kids look up to us, of course, as coaches. So I tell them, 'You know I love playing sports. I love playing basketball. I love playing tennis.' And they'll be like, 'Well, I love it too.'" Students often mimicked the behavior of others, especially those of older people and mentors. Therefore, if program staff shared their healthy habits with their students, students were likely to follow, especially if they respected their program staff member. Furthermore, some program staff conversed about the use of positive praise and encouragement for students who made healthy choices for the purpose of keeping their students motivated:

> [I] over glorify whatever they do. "That's a great strawberry. That's a great banana…" They get excited if I tell them [that]…Any time they get special attention they love it. All of them love it.

These examples demonstrated how program staff valued the importance of the SSS message and used the influence they had as role models to connect with their students.

In summary, the findings regarding content, compliance, and competence suggest that the SSS staff had (a) the proper training and resources (content) to effectively implement the SSS curriculum, (b) the ability to align their lessons with elements of the core curriculum (compliance), and (c) the efficacy to adapt their curriculums to their students' needs in order to increase interest and engagement among students in the SSS program (competence). In other words, the content of the SSS curriculum appeared to be effective as staff members implemented skills learned through the training to cater (or adapt) the SSS activities to the needs and interests of their students. Also, by using the resources available, staff members were able to create environments that seemed welcoming, child-centered, and fun—all of which can increase and maintain student interest and engagement. The next chapter further explores the primary question regarding the effectiveness of the adaptations made by the program staff, by focusing on the adaptations that were effective and those that were less effective in increasing student knowledge, interest, and engagement.

CHAPTER: V
ADAPTATION OF THE SSS PROGRAM

Because the SSS program was originally family-oriented, adaptation of the program was a key factor contributing to keeping the students motivated and engaged. Specific to the LA's BEST program (n = 22 sites), it was reported that 93.3 % of the sites have adapted the lessons from the original curriculum. When program staff felt the curriculum was not appropriate for their students' developmental and physical needs, modifications were made to address the goals of the program for all students.

This section examines why the program staff adapted the SSS curriculum, and highlights how they were able to adhere to the key principles of the SSS program while adjusting the delivery styles to maintain student engagement.

Reasons for Adaptation

There were four main reasons that the program staff adapted the SSS curriculum: (a) to adjust the curriculum to the physical spaces and structures of their sites; (b) to maintain the interest of their students; (c) to moderate the content so that it was culturally appropriate for the Latino students as well as the non-Latino students participating in the SSS program; and (d) to ensure that the content and activities were age-appropriate for the students. This section describes the adaptations that were made in the curriculum.

Program Structure and Physical Accommodations

Afterschool program structures and their accommodations were a main reason for making modifications to the SSS activities. Depending on the days of the week, the hours, how much time was allotted for the SSS program (i.e., once, twice, or three times a week), and the kinds of facilities available, the SSS program was adapted to fit the schedules and structures of the afterschool site. However, although the adaptations were made, the program staff members were keen on keeping the principles and structures of the SSS program intact. The structure for each lesson of the program consisted of an introduction and review, the lesson for the day, snack, the activity, and the discussion section. A program staff member described how she adapted the SSS curriculum so that she could fit the material and the goals of the activity to the structure of her program site.

> What I did was for the first three days I'd do activities with them (the students) with what the book (SSS curriculum) said. On Thursdays what I'd do is I'd leave that as a time to go over it as a group. It says in there (SSS curriculum) that you need about an hour or so to discuss what went on, and what we covered the first couple of days. So I leave that for one day, which is Thursdays.

Other program staff members adapted the SSS curriculum because of what their site could accommodate for the SSS activity:

> Yes, there were some activities that we said weren't appropriate….some of the stuff, like jumping, we are upstairs. There's another class downstairs. We decided not to allow jumping or crawling. The floor is not carpeted….chairs everywhere and tables. I did other stuff with them.

Keeping the Interest of Students

Another reason the SSS program staff adapted the curriculum was to maintain the interest of their students. The SSS program staff would attempt to alternate the material and the activities so that the students would be able to stay focused and engaged in the program. A program staff member commented on how the students would become bored right away or would become anxious to move on to the next activity:

> [You change it (SSS curriculum) up] so you're going to have more of their (the students) attention span. When they come in, I'm trying to get everybody not to talk, to behave, to sit straight, and I'm trying to implement all of this (SSS curriculum). That takes up a lot of my time. Like with everything they lose interest. [So], I have a lesson planned for an hour and then I have this activity and they're ready to be done. I think, 'Why are they done so quick?' There are certain children that will finish and then they start talking to other children.

Another program staff member echoed this claim of keeping the material fun for her students:

> I think the way I chose how to have the children adapt to it was to have it be a little bit more fun, not so by the book (SSS curriculum). I definitely use the book, but some of the things you read and then do it your own way. That's how I decided to do it with the children because I think if I went by the book they'd find it boring. For them, their attention span is not so great. I've got to catch them quick or I'll lose them. That was my thing.

Due to the developmental level of the students, sometimes more concrete examples were needed. Program staff added concrete material to enhance the core concepts of the SSS program and expand their students' knowledge. For example, a program staff member brought different types of cooking oil to illustrate how to cook with healthy choices:

> I had to teach them what type of oil not to eat. They have to look at it. For example, when I gave out the cooking class, I had to have the Canola oil. I had to have the vegetable oil. I had to have it right there with me. I give it to the students themselves. 'Let's turn it around. It has poly fat. It has mono fat.' I actually have to go on the internet and find out why this oil is the best.

Cultural Appropriateness

The SSS program is designed for the Latino population and appeared to work very well with first generation immigrants:

> I only had probably the basic knowledge from high school in health classes… *Salsa, Sabor y Salud* has things that they can really relate to since they are mostly Hispanic, so they have a lot of things in there like family gatherings and all of that, I think it's more helpful for them. Even the first graders are very small, and they need more time to understand things. They do understand and they remember all of the memories they have going to their family gatherings, and the food they eat.

> Well, I mean the Perfect Pairing, the beans and the rice, I would tell them, "You know, that's the perfect pair." And they are like, "Yeah, Miss Jenny, I go home and I eat beans and rice every day."

For the second generation of Latino students that were born here, and the few students in the program who were not Latinos, there were more difficulties in getting familiar with some of the cultural context that are embedded in the curriculum.

> I mean I'm half Hispanic and all, but one of the, even when the lessons are, when there are activities they'll listen to the CD that's in Spanish. But, you know, I don't even understand what the words are. And like some of the kids, a lot of them are Hispanic, especially at this school. But some of them don't even speak Spanish. Some of them, we'll say half of them or two-thirds of them don't really connect with that.

> I guess because I have three kids that are not Latinos, it's kind of harder. It does explain a lot of our culture. I feel kind of weird explaining it to them. They don't feel like they're included…they're all in Spanish. They do like the rhythm. They don't understand what they're saying

In these cases, the program staff would tweak the content, or replace some words with the more familiar ones to the students so that all students would be able to feel connected to the lessons.

Age-appropriateness

Being physically appropriate was another important reason for adaptation. Most of the program staff felt that the physical activities, which included the obstacle courses, dancing, stretching, etc. were on average, physically appropriate for all the students. However many activities were more developmentally sensitive, for example:

> You teach second to fourth grade, so developmentally there's obviously differences in what those children may be able to do with their capabilities. Then there are physical

differences because the children are different sizes and shapes [because of their age levels]."

Sometimes, the younger-aged students had a harder time with some of the physical fitness activities because of their smaller physique as compared to the older students. Another program staff member said:

> Well, for physical activities, yeah. I try to keep them simple, you know, they (SSS curriculum) even gave me a manual of like different age groups, like what they can do. And at this [young age], you are just learning how to catch the ball and throw things. Like it is dexterity and all that stuff. And that's what I try to teach them. I'm not going to teach them something that they can do when they're in fifth grade.

Content appropriateness was another salient factor for the program staff to adapt the SSS curriculum:

> We don't always go with the book (SSS curriculum) …it doesn't give us specific facts on how to break down the nutrition factor…the book doesn't teach us how to explain it to them (the students)…When I start the entire activity I start with questions. 'How many of you know what this means? How many of you know what lard is?' From there I move on. If the questions are too high (difficult), if I'm going to be asking the first grader who knows what lard is, some of them have no clue. So, that's when I start breaking it down. I go from there and from whatever they know.

The program staff further explained, "We adjust ourselves. We do go by the book, but we adjust to how we're going to explain it to them depending on their grade. Since the older kids would get bored more easily whereas the younger students would feel too challenged with the activity content, and have shorter attention span…"

> I think the program was basically done for fourth and fifth graders. I think some of the things are difficult for a first grader to understand. Maybe second grade, but since most of the schools in LA's BEST are low-income children, some of them don't have a big level on reading skills and writing skills. I think it's kind of difficult for them to understand. You have to break it down for them to understand. Maybe that could be a little different...

The SSS program staff attempted to simplify the content for the younger students so that they could learn and comprehend the materials. An example was demonstrated by a program staff member who used simple words to explain the concepts and ideas in the SSS manual. Adjusting to the developmental level of her students, she also used more visual activities than lecturing to keep the younger students interested. This program staff member stated, "[I made things] more visual [for] the first grade level because they didn't know what

physical meant. They didn't know what success meant. So I had to use smaller words for them to understand."

Another reason for adaptation was the age-appropriateness of the Spanish music. The music included in the SSS curriculum kept the interest of the younger students as they took part in physical activity, but did not engage the older students:

> The [Spanish music] attracts my first graders, but not my fifth graders. So, that's why I use [Best Fit, a fitness program] in conjunction with *Salsa, Sabor y Salud* so they enjoyed it as well.

Overall, the program staff adapted the curriculum to be more developmentally appropriate for their students so that the students could be actively engaged. While making modifications in the structure, content, and or activities of the SSS program to meet the individual needs of the students, program staff also worked diligently to ensure that the core principles of the SSS program remained intact. As one program staff member explained, "We definitely want to meet their [SSS program] goals." Procedures were in place to make the adaptations work. The following section describes how the program staff adhered to the principles of the SSS curriculum.

Maintaining Program Fidelity on Adaptations

Although SSS program staff members were given a general sense of autonomy in restructuring the curriculum, they were also able to receive feedback and collaborate with their site coordinators and SSS program staff from other LA's BEST sites. A site coordinator responded, "We [the program staff member and herself] would review the guide and would come up with the lesson plans ourselves while making sure we get the *Salsa* message across..." Collaboration and/or the sharing of information also occurred among the SSS program staff. They would discuss what worked and what did not work in their classrooms. For example, a SSS program staff member shared her lesson plans with other program staff:

> With my co-workers [other SSS program staff] they like some of the things I'm doing. I ask them to let me know how they did so maybe later on they could do something close to what I'm doing with their students to see if they like it. If their students like it they might like adding it to their class.

Program staff worked together to make sure that their students were engaged and learning from the program. Much effort was exuded from the site coordinators and program staff to collaborate and brain storm together so that the adaptations did not deviate from the core concepts of the SSS program.

Student Perspective on How the Program Works

Positive staff and student relationships are important elements in creating an environment that is conducive to student learning, provide freedom for students to express their true opinions, and encourage students to try new things (Beckett, Hawken, & Jacknowitz, 2001; Huang 2001; Birmingham, Pechman, Russell, & Mielke, 2005). When students were asked whether they felt comfortable with the SSS program staff member and the SSS program, almost all students said they were comfortable. When asked "How does the [SSS program staff member] make you feel comfortable?" A student affirmed: "They made me comfortable because I ate fruits, vegetables, and they're good." A different student chimed in, "They showed us what to eat most of, but not a lot. One junk food a day."

In addition, other students discussed how their program staff made them feel comfortable because of the way they taught the SSS curriculum. One student voiced that, "They make me feel comfortable by telling me the answers to questions and stuff." Other students described how they were comfortable because their program staff member helped them learn the material in a fun way:

> [SSS program staff member] makes me feel comfortable because she describes it…she gives it to you in a fun way.

> I was going to say that they [SSS program staff] make it fun. [She] makes us laugh. [She] makes us more information and I understand it more. And how she said it and how she acts.

> She makes us more comfortable by playing games. My favorite thing about *Salsa* is answering questions. She makes us comfortable by having fun.

The students had fun because the activities challenged them to apply the newly learned concepts into the activities. A student summed up by saying, "Because I was used to it over here [SSS class], so I kind of used to it at home." That is, students used the knowledge they learned in SSS and took it home with them in their personal lives. Students were able to remember and apply the concepts that they had learned from the SSS nutritional and physical activities that they had participated in within the program.

What Works With the Students?

As described earlier, students liked both the nutrition and physical activities of the SSS program. When asked, "What do you like best about the *Salsa, Sabor y Salud* program?" Many students answered the "games and activities." Another program component often mentioned was healthy eating.

Content

Students conversed about their enjoyment in gaining knowledge about healthy food and nutrition, and in applying their knowledge to make healthy eating part of their daily diet:

> Student 1: My favorite activity in *Salsa, Sabor y Salud* was when we made an apple with peanut butter and pretzel sticks with raisins and granola. We [make] healthy fruits and it was fun and nutritious.
>
> Student 2: Like he said, we made an apple. It was fun to make it. [SSS program staff member] said it was good for you. And we wrote the recipe for it so we could make it at home.

These students enjoyed making healthy snacks because they were not only learning how to eat healthfully, but were using their knowledge to create recipes that they could use outside of their classrooms, in the convenience of their own home with their parents. Students also discussed how cooking in their SSS class enabled them to create healthy recipes for themselves, so that they could become healthier.

Another nutrition activity that the students particularly enjoyed was making their own menus for their own restaurant. These activities were popular with the students because, "You try different foods…and you get to learn how much we eat and how we have to eat and try something new." These activities not only allowed students to learn important concepts about health and nutrition, but also permitted them to apply the knowledge in concrete activities.

Physical Activities

Physical activities were another aspect of the program that students enjoyed. Students liked going outside, getting fresh air, and playing sports like basketball, soccer, and volleyball. A student said, "We do fun things that make you strong and healthy." Another student affirmed, "We play games and [have] fun, and in my house I don't do much things because I don't have a lot of space, but here I can play a lot." Other students talked about how the obstacle courses and playing games outside helped them to become more physically fit:

> Student 1: I liked when we went to the obstacle course, because we were racing against each other. And it was fun, because we actually had to get in the cones and out of the cones, and we had to jump the hula hoop, and we had to jump give times. Jump five times.

> Student 2: That when, when we were going to do the, the second obstacle course I could see where it was. So I knew that it was going to be fun, because I saw a lot of cones there.

The combination of instruction in nutrition and health, in addition to the incorporation of physical activities, increased the enjoyment of the students and kept them engaged. By connecting the key concepts with concrete activities, students made the connections from knowledge to application and felt empowered to make changes in their daily lifestyles to healthier habits, such as creating healthier recipes, watching less TV, and engaging in daily physical activity.

What Does not Work? Why do Students Feel Uncomfortable?

Although most of the students enjoyed participating in the health and physical activities, other students were less thrilled. Some of the reasons that the students did not enjoy the SSS program were due to the negative perception of the program staff (the program staff member's "strictness"), boredom from the lack of variability in the activities, and the lack of variety in the SSS program location.

One student remarked, "At first I didn't want to eat healthy stuff, but they threatened me to do it." Another student said, "It makes me uncomfortable because we only do the same games. We can do other games, so we could have fun playing, and we could do different games." A different student added, "We always have to stay in the classroom. We can never do it somewhere else, and because we always do it in the same room, but we don't do it in a different room." The need for variations was a major cause of complaint for the SSS program partly due to the short attention span, and the developmental needs of the students.

In general, adaptations were made to the SSS curriculum for several reasons: (a) to fit the schedules and structures of the afterschool site, (b) to keep students interested and engaged, (c) to ensure that the program was culturally appropriate for all participating students, and (d) to ensure that the program was age-appropriate and appropriate for students' physical needs. Program fidelity was maintained by collaborating with and seeking advice from the SSS coordinators and program staff from other LA's BEST sites. Student feedback revealed that students felt comfortable with the program staff and the program. Also, students enjoyed gaining knowledge on healthy foods, nutrition, and on various physical activities and the benefits of exercising. However, the students' feedback also suggested that strict program staff, and a lack of variability in some activities and program location, might have had a negative impact on their interest in the program curriculum. Therefore, student feedback generated a wealth of information regarding practices that 'worked' and those that 'did not

work' in increasing student interest and engagement. This suggests that although adaptations based on program staff member knowledge is important, program staff should also use student feedback to make additional changes to the curriculum, so student interest and engagement is increased and maintained.

CHAPTER VI
OUTCOME EVALUATION

The following chapter presents the results from the outcome evaluation of the LA's BEST sites. This includes results from the analysis of student surveys, as well as applicable results from the staff surveys, observations, staff interviews, and student focus groups. In order to provide more clarity to the analyses, the results are presented by topic: (1) impact of program on student participants, (2) impact of program on staff, and (3) reach of the program. Discussion of the results are presented in Chapter VIII.

Impact of Program on Student Participants

Program students and matched control students were surveyed at the beginning and end of the program on their: (1) knowledge and awareness, (2) attitudes, (3) unhealthy behaviors, and (4) healthy behaviors. The instruments were analyzed using descriptive analyses and ANCOVAs.

Student Demographics

Table 3 presents the demographic characteristics used to create the matching control group. Results are aggregated across the two administration cycles.

Table 3

Descriptive Characteristics of the Program

Grade level, gender, and language spoken	Percentage of total matched control sample (n = 384)	Percentage of total program sample (n = 384)
Grade level		
Grade 1	16.1%	16.7%
Grade 2	19.8%	18.2%
Grade 3	24.7%	27.6%
Grade 4	29.4%	28.6%
Grade 5	9.9%	8.6%
Gender	47.9% (m), 52.1% (f)	47.3% (m), 52.6% (f)
Language spoken by child		
English only	6.2%	7.3%
English and Spanish	83.9%	84.6%
Spanish only	0.5%	0.5%
Other or unknown	9.4%	7.5%
Language spoken by adult		
English only	5.5%	6.0%
English and Spanish	67.7%	68.2%
Spanish only	26.3%	28.0%
Other or unknown	0.5%	0.8%

As intended, the students in the matched control sample shared similar demographic characteristics as the students who were served by the program (see Table 3). Slightly more than half of the students in each sample were in Grade 3 or 4. Just over one-third of the students in each sample were in Grade 1 or Grade 2, whereas less than 10% of the students in each sample were in Grade 5. There were slightly more boys than girls in each sample. The great majority of students in each sample spoke both English and Spanish. Furthermore, very few of the students were Spanish only speakers, although about one-quarter of the students reported living with adults from that category.

Student Knowledge and Awareness

In order to make any behavioral changes toward a healthy lifestyle, the knowledge of what a healthy lifestyle entails must be acquired, including habits considered beneficial to health. Areas of knowledge assessed included: (1) healthy snacks, (2) the benefits of being

active, (3) general guidelines for healthy nutrition, (4) what constitutes healthy activity, and (5) healthy food choices. Results from the qualitative data provide further details of changes in student knowledge.

(1) Knowledge of healthy snacks. Table 4 presents the descriptive results of the pre- and post-survey questions regarding the students' knowledge of healthy snacks. In general, students in both groups tended to correctly identify healthy snacks at both pre and post surveys, with the exception of the "carrot cake" question. Over one-third of the children across the two samples identified carrot cake as a healthy snack.

Table 4

Student Knowledge of Healthy Snacks

Which of these foods and drinks are healthy snacks?	Matched control sample (n = 384)		Program sample (n = 384)	
	Pre survey	Post survey	Pre survey	Post survey
A handful of grapes	88.8%	88.8%	89.8%	88.5%
An apple	88.3%	86.7%	91.1%	89.1%
A glass of milk	89.0%	87.0%	91.1%	85.7%
A bag of chips	8.1%	14.3%	8.3%	13.5%
An order of French fries	10.7%	14.3%	9.1%	14.6%
A piece of carrot cake	32.9%	40.6%	34.1%	39.1%
A glass of orange soda	85.4%	88.8%	88.5%	83.6%

Additional support concerning the impact of SSS on student participants emerged from the qualitative data. Students periodically brought up the issue of snacks during the focus groups. In most cases, students talked about snacks in the context of their afterschool program or talked about having something healthy. Notably, students mentioned the foods that could be considered healthy three times more than the foods that could be considered unhealthy. In addition, when students mentioned these unhealthy foods (or other sweets), they usually talked about them in terms of being unhealthy or discouraged by the staff at SSS.

(2) Knowledge of the benefits of being active. Table 5 presents the descriptive results of five pre- and post-survey questions regarding the students' knowledge of the benefits of healthy activity. Most students responded that being active would help give them energy, build strong bones and muscles, and maintain a healthy weight. However, fewer responded that being active would help keep them from getting sick or pay better attention in school.

Table 5

Student Knowledge of the Benefits of Being Active

Why is being active good for kids?	Matched control sample (n = 384)		Program sample (n = 384)	
	Pre survey	Post survey	Pre survey	Post survey
It helps keep you from getting sick.	37.6%	42.9%	52.9%	52.1%
It helps you pay attention in school.	44.9%	50.0%	47.7%	54.7%
It gives you more energy.	80.9%	81.7%	86.7%	84.1%
It helps build healthy bones and muscles to keep you strong.	84.3%	88.0%	88.3%	87.0%
It helps me to be a healthy weight.	77.0%	79.3%	75.3%	79.7%

During the focus groups, students were asked about what they learned during SSS. Although many of the students mentioned benefits from having a healthy lifestyle, most of the examples they provided focused on the benefits of good nutrition (n = 40) and not on the benefits of being physically active (n = 12). As with the survey data, the most commonly mentioned benefit of a healthy lifestyle was getting strong. This finding was true whether students talked about nutrition or physical activity. Likewise, few if any students mentioned that a healthy lifestyle can keep you from getting sick or can help you pay attention in school.

(3) Knowledge of general guidelines for healthy nutrition. The SSS program stresses some general guidelines for healthy nutrition. Table 6 presents the descriptive results of five pre- and post-survey questions regarding these guidelines. The great majority of students were aware that fruits and vegetables were healthy at the time of the pre survey. The descriptive results suggest that after the intervention the program students were more aware of the benefits of eating a variety of foods rather than the same foods every day.

Table 6

Student Knowledge of General Guidelines for Healthy Nutrition

It helps me be healthy when I eat or drink…	Matched control sample (n = 384)		Program sample (n = 384)	
	Pre survey	Post survey	Pre survey	Post survey
fruits and vegetables.	90.1%	89.8%	94.5%	91.1%
the same food every day.	37.6%	33.3%	34.8%	24.7%
different foods from all the food groups.	76.2%	78.6%	82.2%	83.3%
6 glasses or more of water a day.	82.8%	79.7%	85.6%	83.3%
a lot so that my stomach feels extra full.	18.3%	23.7%	18.3%	19.5%

Data from the focus groups showed that many program students were already thinking about some of the general guidelines for healthy nutrition when they participated in the focus groups midway through the curriculum cycle. Students frequently talked about fruits and vegetables (n = 63 and n = 70) and the issue of portion size (n = 55). Smaller numbers of students also talked specifically about food groups (n = 21) or brought up the issues of food groups and portions by talking about the United States Department of Agriculture (USDA) food pyramid (n = 11). In contrast to the surveys, only one student talked about the need to eat a variety of foods, and none talked about the daily recommendation concerning water.

(4) Knowledge of what constitutes healthy activity. Descriptive results are presented in Table 7 for eight pre- and post-survey questions regarding the students' knowledge of what constitutes healthy activity. The students generally understood that playing sports, jumping rope, and riding a bicycle were healthy activities, whereas watching TV and playing videogames or board games are not. They were slightly less accurate in identifying dancing as a healthy activity. The descriptive results suggest, however, that the program students may have valued dance as a healthy activity more at post survey than they did at pre survey.

Table 7

Student Knowledge of what Constitutes Healthy Activity

	Matched control sample (n = 384)		Program sample (n = 384)	
It helps me stay healthy when I...	Pre survey	Post survey	Pre survey	Post survey
jump rope.	78.9%	81.7%	83.8%	86.2%
play sports.	85.9%	87.2%	89.0%	87.2%
dance.	68.9%	67.9%	72.6%	77.1%
ride a bicycle.	81.5%	83.8%	86.7%	87.8%
play videogames.	16.2%	19.3%	15.7%	19.3%
watch TV.	11.7%	18.0%	11.5%	18.7%
play board games.	20.4%	19.3%	21.7%	24.7%

Physical activity was another common theme among focus group participants. For instance, program students talked about "play" and "games"—non-exercise forms of physical activity emphasized in the curriculum—many times. Students also talked about specific forms of physical activity very often during the focus groups.

Of the activities on the survey, "sports" was mentioned 44 times, jumping rope was mentioned once, and dancing was mentioned 36 times. The result concerning dance is especially interesting considering that fewer program students seemed to classify it as a healthy activity during the pre survey. Program students also talked about specific types of sports. The most frequently mentioned were basketball and soccer (n = 34 and n = 33, respectively). Running was also a frequently mentioned form of physical activity with students providing 55 examples.

Students talked about their knowledge of sedentary activities infrequently during the focus groups. When touched upon, students tended to talk mostly about television. In most cases when sedentary activities were mentioned, students emphasized that they were not as healthy as sports or other forms of physical activity.

(5) Healthy food choices. Students were asked three scenario-based questions to assess their knowledge of healthy food choices on the surveys (see Appendix C). Each potential choice was given a score based on its nutritional value. In one of the scenarios, students were asked to imagine they were at a barbecue and were given several options as to how they might serve themselves. The most commonly selected option at both pre and post survey was "only fruits and vegetables." This option was chosen 38% of the time by the program

students at each time point. Two other scenarios involved making healthy choices while shopping with a parent or guardian. When asked to choose from some potential shopping lists, the most commonly selected option at both the pre and post survey was the selection that included all the food groups ("Fruits, vegetables, meat, cheese, milk, bread, and dessert"). Program students chose this option 40% of the time at pre survey and 38% of the time at post survey. When the scenario suggested that the parent had neglected to include fruits, vegetables, dairy, cake, or ice cream in the cart the most common response was to "remind my parent or guardian that we should buy fruits, vegetables, and dairy." Program students chose this option 32% of the time at pre survey and 41% of the time at post survey.

Statistical analyses of program effects on student knowledge of nutrition and physical activity. The 17 knowledge-based questions were combined into a single reliable scale for examining overall program effects on student knowledge of nutrition and physical activity. Reliability analyses were performed at both pre and post survey on this scale. Items for negative choices such as identifying "a bag of chips" as a healthy snack were reverse coded so that each response was either correct or incorrect. Two of the 27 questions displayed negative item-to-total correlations, suggesting that the students did not interpret these items correctly or that they did not correspond to the same knowledge construct as the other 25 items. One of these items was the question asking whether carrot cake is a healthy snack and the other asked if healthy physical activity would help students pay attention in class. After removal of these two items, the Cronbach Alpha measure of internal consistency was 0.74 at pre survey and 0.79 at post survey. To improve efficiency, a weighted composite of the students' knowledge was created at both pre and post survey using principal components analysis. This weighted composite was then adopted as the outcome measure of student health knowledge.

An ANCOVA was performed to determine whether there were any group differences in the knowledge factor at the post survey between the matched control students and those who participated in the program. The pre-survey knowledge factor served as a covariate (control variable) and additional factors were included to determine if there were any differences across the grade levels or administration cycles. Grade levels were combined into two categories: primary grades (i.e., Grades 1–2) and upper grades (i.e., Grades 3–5).

There was no significant main effect ($p = 0.794$) of the SSS program resulting from the ANCOVA. There was, however, a small but significant main effect of grade level ($p = 0.044$) whereby students in the older grades demonstrated more knowledge than did students in the primary grades. Overall, students in the upper grades were estimated to score 0.13 standard deviation units higher than those in the primary grades. There was also a significant

interaction between grade level and the treatment group (p = .005). Program students in the upper grades were estimated to score 0.32 standard deviation units higher than the program students in the primary grades. Conversely, control students in the upper grades were estimated to score 0.05 standard deviation units lower than the control students in the primary grades. Table 8 shows the estimated knowledge mean in standard deviation units for each group by grade level at post survey, while controlling for the pre-survey score.

Table 8

Estimated Means at Post Survey, Group Differences in Student Knowledge

Grade level	Matched control sample (n = 384)	Program sample (n = 384)	Total by grade level
Primary grades (1–2)	0.01	-0.19	-0.09
Upper grades (3–5)	-0.04	0.13	0.04
Total by sample	-0.02	-0.03	

Note. Knowledge factor scores have a mean of 0 and a standard deviation of 1.

Consistent with the ANCOVA results, during the focus groups, program students from the upper grades provided slightly more examples of correct knowledge about healthy lifestyles than did students from the primary grades. Furthermore, they showed a lower percentage of incorrect knowledge (5.5%) than did the primary students (16.3%) or those students who participated in focus groups, including a mix of primary and upper grades (37.5%). Interestingly, primary age students also appeared to have the most difficulty with naming food groups and issues focusing on the four steps toward healthier living from the curriculum.

Program staff members were asked to talk about changes that they perceived concerning student knowledge. They all agreed that the program positively impacted student knowledge. In most cases, students were thought to have gained at least some knowledge concerning food groups, portion sizes, and healthy snacks; all topics featured within the curriculum. However, few provided examples of changes in students' physical activities. This may have been the result of the high levels of physical activity that some staff noted already existing in LA's BEST. As with the results from the student surveys, some program staff shed light on age differences concerning student knowledge. For instance, one staff member who worked with students from both primary and upper grades noted that the younger students had more difficulty classifying foods into certain food groups: "They're more knowledgeable towards the fruits and the vegetables. They're not really on the grains and the meat." Moreover, one of the staff members who worked only with upper grade

students noted that the students were able to move beyond the food groups and classify foods in terms of whether they were healthy or not.

Student Attitudes

After participating in SSS, students' attitudes towards living a healthy lifestyle would be expected to change with new knowledge about nutrition and physical activity. To change behavior, students need to modify their current lifestyle to include more healthy practices. Attitudes assessed include those concerning: (1) healthy food and junk food, (2) the taste of healthy food and junk food, (3) the ability to make healthy nutrition choices, and (4) physical activity. Results from the qualitative data provide further details of these changes.

(1) Attitudes concerning healthy food and junk food. Students were questioned regarding their attitudes concerning healthy food and junk food prior to and following the intervention period. Descriptive results are presented in Table 9. Students in both the matched control and the program sample responded that eating healthy foods makes them feel "good" close to 90% of the time. Students in each group were much less likely to respond negatively (i.e., terrible, sad, and or tired) to the same question. The most popular response was "terrible" regarding how eating junk food made the students feel. This was true for both the matched control and the program sample. Furthermore, the results suggest that after completing SSS, program students were less likely to report that junk food made them feel good and were more likely to respond negatively about eating junk food.

Table 9

Student Attitudes Concerning Healthy Food and Junk Food

Student attitudes	Matched control sample (n = 384)		Program sample (n = 384)	
	Pre survey	Post survey	Pre survey	Post survey
Eating healthy foods makes me feel ____.				
terrible	8.3%	8.1%	5.7%	3.4%
good	89.6%	86.7%	90.4%	90.4%
sad	3.1%	1.6%	2.6%	3.4%
tired	2.9%	4.7%	7.8%	6.3%
Eating junk food makes me feel _____.				
terrible	42.7%	42.2%	41.7%	44.0%
good	29.7%	31.8%	34.6%	28.6%
sad	11.5%	8.6%	6.8%	10.9%
tired	28.9%	28.6%	29.7%	32.0%

Students were not specifically asked about their attitudes concerning healthy food and junk food during the focus groups. Despite this, three students did explicitly state their attitudes about these foods. For instance, one upper grade student stated, “When you eat healthy food you feel powerful. When you eat junk food you feel lazy.”

(2) Attitudes concerning the taste of healthy food and junk food. Students were also surveyed regarding their attitudes to how healthy food and junk food taste prior to and following the intervention. Descriptive results are presented in Table 10. Students in both the matched control and the program were substantially more likely to report positive rather than negative attitudes towards the taste of healthy foods. This was true at both the time of the pre survey and the post survey. Interestingly fewer students responded that junk food tastes “good” than the combined response that junk food tastes “terrible” and or “gross.” It is also of note that students were less likely to report that junk food tastes “better than healthy food” when compared to those who reported that healthy food tastes “better than junk food.”

Table 10

Student Attitudes Concerning the Taste of Healthy Food and Junk Food

Student attitudes	Matched control sample (n = 384)		Program sample (n = 384)	
	Pre survey	Post survey	Pre survey	Post survey
Healthy food tastes ____.				
gross	7.3%	8.6%	5.5%	7.0%
better than junk food	43.2%	43.0%	41.1%	43.5%
terrible	5.5%	4.9%	4.7%	7.6%
good	56.5%	56.2%	61.5%	56.3%
Junk food tastes ____.				
gross	28.9%	32.6%	27.6%	29.9%
better than healthy food	12.5%	15.6%	14.3%	13.8%
terrible	29.9%	25.8%	29.4%	31.3%
good	39.3%	37.2%	41.4%	38.3%

As with healthy and junk foods, focus group participants were not asked about their attitudes concerning the taste of food. Only one student stated the specific opinion that healthy food tastes good. Furthermore, no students expressed negative opinions about the taste of healthy food, or expressed positive or negative opinions about the taste of junk food.

(3) Attitudes concerning ability to make healthy nutrition choices. Table 11 presents the student responses regarding how difficult it is to make healthy food choices. Students in both the matched control and the SSS program were generally more likely to report positive rather than negatives attitudes towards the selection of healthy food choices. They were much more likely to report that the process was “fun” than “boring” and somewhat more likely to report that the process was “easy” as compared to “hard.” Despite this, between pre survey and post survey the program students appeared slightly more likely to report that selecting healthy choices is “easy” and less likely to report that making such choices are “hard.”

Table 11

Student Attitudes Concerning Ability to make Healthy Nutrition Choices

It is ____ for me to select healthy choices when I eat.	Matched control sample (n = 384)		Program sample (n = 384)	
	Pre survey	Post survey	Pre survey	Post survey
hard	23.7%	22.9%	32.0%	28.4%
boring	7.3%	9.1%	8.1%	8.9%
easy	39.8%	38.0%	34.9%	39.3%
fun	41.9%	43.0%	39.8%	38.3%

Focus group participants were not specifically asked about their attitudes concerning healthy nutrition choices. Despite this, six program students did state that they wanted healthy food rather than junk food. When asked questions concerning whether they talk about the program, many of the students stated that they asked their parents to buy them and/or their families healthier foods. Furthermore, most of the students who provided examples stated that their parents did follow their suggestion.

(4) Attitudes concerning physical activity. Finally, the student pre and post surveys included two questions regarding student attitudes toward physical activity. Student responses to these two questions are presented in Table 12. Again, students in both the matched control and the program were more likely to report positive rather than negatives attitudes. This was true both prior to and following the intervention period. The most prevalent attitude towards being active was that it was “fun.” Students were also much more likely to report that being active makes them feel “good” or “energized” rather than “tired” or “terrible.” Despite this, the percentage of program students who responded that being active is “fun” increased slightly between pre and post survey, whereas the reverse was true for the control group. Similarly, more program students reported that activity made them feel “energized” at the end of the program relative to the beginning.

Table 12

Student Attitudes Concerning Physical Activity

Student attitudes	Matched control sample (n = 384)		Program sample (n = 384)	
	Pre survey	Post survey	Pre survey	Post survey
Being active is ___.				
hard	12.0%	9.6%	10.2%	10.7%
boring	6.0%	6.8%	6.3%	6.0%
easy	28.9%	34.1%	31.8%	31.5%
fun	71.6%	66.1%	67.7%	70.8%
Being active makes me feel ___.				
tired	13.3%	14.1%	15.6%	14.8%
energized	46.9%	46.9%	40.1%	45.6%
terrible	4.9%	4.2%	4.9%	5.2%
good	54.7%	56.2%	58.1%	56.0%

Many of the focus group participants stated that they were physically active prior to joining the program. Furthermore, program students frequently talked about sports and physical activity. These both imply that students already had positive attitudes concerning physical activity. Possibly, because of this, only one student stated an opinion that his or her attitudes about physical activity had changed positively during the program.

Statistical analyses of program effects on student attitudes toward nutrition and physical activity. The attitudes-based questions were combined into a single reliable scale for examining overall program effects on student attitudes toward nutrition and physical activity. Initially two combined scores were created within each of the seven attitude questions, one to measure positive attitudes and one to measure negative attitudes. For example if a student responded that eating healthy foods made them feel "good" and did not check the other three options, they would be credited "+1" point for the positive score, and zero points for the negative score for this question. This resulted in 14 scores across the 7 attitude questions.

Reliability analyses were performed at both pre- and post-survey attitudes scale. The Cronbach Alpha measure of internal consistency was 0.76 at pre survey and 0.79 at post survey. A single weighted composite of student attitudes was then created at both pre survey and post survey using principal components analysis.

As with the knowledge questions, an ANCOVA design was employed to determine if there were any group differences in the attitude factor at the post survey between the matched control students and those who had participated in the program (see Table 13). The pre survey attitudes factor served as a covariate (control variable) and additional factors were included to determine if there were any differences across the two administration cycles or by grade level. There was no significant main effect of the intervention (p = 0.405). Furthermore, there were no significant interaction effects between grade level and the treatment group (p = 0.605).

Table 13

Estimated Means at Post Survey, Group Differences in Student Attitudes

Grade level	Matched control sample (n = 384)	Program sample (n = 384)	Total by grade level
Primary grades (1–2)	-0.02	0.00	-0.01
Upper grades (3–5)	-0.04	0.05	0.01
Total by sample	-0.03	0.03	

Note. Attitude factor scores have a mean of 0 and a standard deviation of 1.

When examining the qualitative data, discussion of students' attitudes about healthy lifestyles was more predominant among program staff than among program students. For example, few students talked explicitly about their attitudes. Despite this, students who did discuss the topic were fairly equally split between the primary and upper grades. In contrast, 92.67% of the program staff surveyed and over two-thirds of those who participated in the interviews indicated that students were benefiting positively in terms of their attitudes about healthy lifestyles. In most cases, staff indicated that students were showing attitude changes about nutrition. As with the following example, staff often provided examples of statements made by students as evidence of attitude change:

> That one time when they saw me eating fast food. On Thursday, and they got really mad. That is how I see that they really actually care about it now. Cause they are criticizing me. They are calling me a hypocrite for, you know, teaching them how to eat healthy, but I'm eating this junk.

Frequency of Unhealthy Student Behavior

Assuming that acquired knowledge about health creates new attitudes toward a healthier lifestyle, students were queried about their behavior and choices that reflect their efforts to live a healthier lifestyle. Frequency of unhealthy behavior was assessed including:

(1) intake of sweets and junk food, (2) intake of caloric proteins, (3) intake of less healthy fluids, and (4) sedentary behaviors. Questions for this analysis were drawn from the pre and post surveys. All of these questions were asked using a 4-item scale: never, once, more than once, and every day. For purposes of analysis, responses were re-coded with scores ranging from 1 to 4 with a score of 1 representing "never" and a score of 4 representing "every day." Results from the qualitative data provide further details of improvements in unhealthy behavior.

(1) Intake of sweets and junk food. Weekly sweets and junk food intake are presented in Table 14. The most commonly reported junk food among both the program and matched control students was ice cream, closely followed by cookies and French fries.

Table 14

Student Unhealthy Behavior – Sweets and Junk Food

How often during a week do you eat ____	Matched control sample (n = 384)		Program sample (n = 384)	
	Pre survey	Post survey	Pre survey	Post survey
ice cream?	2.84	2.76	2.71	2.63
flan?	1.95	1.96	2.05	2.02
cookies?	2.73	2.63	2.65	2.55
french fries?	2.60	2.43	2.44	2.34
potato chips?	2.32	2.39	2.33	2.26
pan dulce / sweetbread?	2.37	2.27	2.23	2.19

Note. Means represent weekly intake.

Although not specifically asked about junk food, students in the focus groups commonly brought up the term (n = 63). Despite this, students only provided 16 examples about reducing or eliminating junk food from their diet. Furthermore, students rarely talked about the specific types of sweets and junk foods listed on the survey. Students did mention "chips" four times, but did not mention pan dulce at all. In general, students talked more frequently about types of junk food not listed on the instrument (i.e., doughnuts, hot cheetos) implying that the instrument may not have included some of their favorite types of junk food.

(2) Intake of caloric proteins. Table 15 presents the descriptive mean results related to intake of some less healthy, more caloric protein sources.

Table 15

Student Unhealthy Behavior – Caloric Proteins

How often during a week do you eat ____	Matched control sample (n = 384)		Program sample (n = 384)	
	Pre survey	Post survey	Pre survey	Post survey
ham?	2.38	2.29	2.57	2.45
cheese?	2.45	2.41	2.46	2.47
enchiladas?	2.42	2.35	2.42	2.32
pizza?	2.81	2.79	2.75	2.56
tacos?	2.71	2.53	2.69	2.53
hamburgers?	2.58	2.54	2.53	2.39

Note. Means represent weekly intake.

The students rarely talked about caloric proteins during the focus groups. For instance, two students stated that they decreased their intake and no students indicated increasing or maintaining their intake of this type of food. Furthermore, students rarely mentioned the caloric proteins listed on the survey. That is, program students mentioned all of the foods six times or less, with the exception of enchiladas, which was not mentioned at all. In most cases students talked about the caloric proteins in terms of being unhealthy.

(3) Intake of less healthy fluids. Descriptive mean results related to intake of some less healthy fluids sources are presented in Table 16. The students reported drinking lemonade and chocolate milk slightly more regularly than soda.

Table 16

Student Unhealthy Behavior – Less Healthy Fluids

How often during a week do you drink ____	Matched control sample (n = 384)		Program sample (n = 384)	
	Pre survey	Post survey	Pre survey	Post survey
soda?	2.57	2.56	2.43	2.33
lemonade?	2.87	2.74	2.84	2.73
chocolate milk?	2.90	2.79	2.71	2.66

Note. Means represent weekly intake.

Few students discussed less healthy fluids during the focus groups and only two indicated a decrease in their intake. Soda was only mentioned four times, and chocolate milk was mentioned once. Interestingly, the only mention of lemonade was by three students who

stated that they drank the fluid during SSS. This implies a potential conflict between what was taught in the program and what was assessed as unhealthy behavior.

(4) Sedentary activities. Descriptive mean results related to the two sedentary activities are presented in Table 17. Students in both the program sample and the matched control on average reported watching TV "more than once" per week.

Table 17

Student Unhealthy Behavior – Sedentary Activities

How often during a week do you ____	Matched control sample (n = 384)		Program sample (n = 384)	
	Pre survey	Post survey	Pre survey	Post survey
watch TV?	3.17	3.19	3.21	3.03
play video games?	2.51	2.50	2.59	2.45

Note. Means represent weekly intake.

Program students talked about television 38 times, and video games 17 times during the focus groups. Only 20 of the students who talked about these sedentary activities indicated that they had a change in their level of participation. In all but one of these cases, students indicated a decrease in this type of unhealthy behavior.

Statistical analyses of program effects on unhealthy student behaviors. The unhealthy behavior questions were combined into a single reliable scale for examining overall program effects on unhealthy student behaviors concerning nutrition and activity. Reliability analyses were performed at both pre and post survey for this scale. The Cronbach Alpha measure of internal consistency was 0.841 at pre survey and 0.858 at post survey. To improve efficiency a single weighted composite of the students' unhealthy behavior was created at both pre and post survey using principal components analysis.

In order to test for effects of the intervention, a three factor ANCOVA was performed. Post-survey scores on the unhealthy behavior factor served as the outcome in this model, whereas the pre-survey unhealthy behavior factor was used as a covariate. Additional factors included the intervention group, the administration cycle, and grade level. Grade levels were combined into two categories: primary grades and upper grades.

ANCOVA results in Table 18 show the estimated means of the unhealthy behavior factor for each group at post survey by grade level after controlling for pre-survey responses. The main effect of the intervention was not significant (p = 0.423). The interaction between the intervention and grade level, however, was significant (p = 0.015). The estimated

unhealthy behavior score for the program students in the primary grades was 0.11 standard deviations higher than the estimated unhealthy behavior score for the students in the matched control. In contrast, the estimated unhealthy behavior score for the program students in the upper grades was 0.21 standard deviations lower than the estimated unhealthy behavior score for the students in the matched control. This indicates that students in the upper grades who had attended SSS were reporting lower frequencies in engaging in unhealthy behaviors in contrast to students in the primary grades.

Table 18

Estimated Means at Post Survey, Group Differences in Student Unhealthy Behaviors

Grade level	Matched control sample (n = 384)	Program sample (n = 384)	Total by grade level
Primary grades (1-2)	-0.08	0.03	-0.02
Upper grades (3-5)	0.12	-0.09	0.01
Total by sample	0.02	-0.03	

Note. Unhealthy behaviors factor scores have a mean of 0 and a standard deviation of 1.

When examining the qualitative data, upper grade and primary students provided a similar number of responses concerning whether they changed their behavior after starting SSS. For instance, primary students gave 17 examples of decreasing their unhealthy behavior, and upper grade students gave 19 examples. Each group provided two statements of not changing their behavior.

Grade-level differences were found in the areas that students mentioned improvement. Although most of the primary students described decreasing their sedentary activities, most of the older students described a decrease in their intake of sweets and junk food. Furthermore, the primary students who mentioned no improvement focused on sweets and junk food, whereas the upper grade students who mentioned no improvement focused on sedentary activities.

Frequency of healthy student behaviors

Healthy behaviors were also assessed including: (1) intake of fruits and vegetables, (2) intake of healthy proteins, (3) intake of healthy fluids, and (4) physical activity. Questions for this analysis were drawn from the pre and post surveys. As with the unhealthy student behaviors, questions were asked using a 4-item scale: never, once, more than once, and every day. Responses were re-coded with scores ranging from 1 to 4 with a score of 1 representing

"never" and a score of 4 representing "every day." Results from the qualitative data provide further details of changes in frequency of healthy behaviors.

(1) Intake of fruits and vegetables. Weekly fruit and vegetable intake is presented in Table 19. Students generally reported eating slightly more fruits (i.e., apples, grapes, and oranges) than vegetables (i.e., carrots, corn, and broccoli).

Table 19

Student Healthy Behavior – Fruits and Vegetables

How often during a week do you eat ____?	Matched control sample (n = 384)		Program sample (n = 384)	
	Pre survey	Post survey	Pre survey	Post survey
broccoli	2.50	2.39	2.53	2.53
apples	3.25	3.17	3.19	3.14
carrots	2.82	2.60	2.83	2.78
grapes	3.19	3.09	3.22	3.19
corn	2.66	2.59	2.67	2.58
oranges	3.14	3.08	3.17	3.16

Note. Means represent weekly intake.

Additional evidence concerning the impact of SSS on student behavior also emerged from the qualitative data. Program students discussed fruits and vegetables throughout the focus groups. In most cases, students provided specific examples of fruits rather than vegetables (n = 81 and n = 23, respectively). Only 21 students stated that they increased their intake of these foods. When talking about intake in general, students did mention eating all three of the fruits and only one of the vegetables on the surveys. They talked about eating apples (n = 31) more than any other food and drink during the focus groups. Despite the quantitative results, few students choose to provide examples of eating oranges, grapes, or carrots—each were mentioned 14 times or less. Furthermore, none of the students stated that they ate corn or broccoli.

(2) Intake of healthy proteins. Descriptive mean results related to intake of some healthy proteins are presented in Table 20. Students reported eating chicken and yogurt more frequently than the healthy protein source of nuts.

Table20

Student Healthy Behavior – Proteins

How often during a week do you eat ____?	Matched control sample (n = 384)		Program sample (n = 384)	
	Pre survey	Post survey	Pre survey	Post survey
chicken	2.78	2.68	2.83	2.71
nuts	2.05	1.91	2.02	1.97
beans	2.52	2.41	2.57	2.62
turkey	2.30	2.12	2.25	2.22
peanut butter	2.41	2.24	2.38	2.46
yogurt	2.92	2.79	2.80	2.87

Note. Means represent weekly intake.

Few of the healthy proteins on the survey were mentioned by program students during the focus groups (n = 23). Students only mentioned yogurt once, while discussing a snack activity from the program, and mentioned chicken eight times when one focus group had a discussion on whether it was healthy to eat chicken with skin.

(3) Intake of healthy fluids. Descriptive mean results related to intake of some healthy fluids are presented in Table 21. Students reported drinking juice and milk more than once per week and reported drinking water more than once per week to every day.

Table 21

Student Healthy Behavior – Fluids

How often during a week do you drink ____?	Matched control sample (n = 384)		Program sample (n = 384)	
	Pre survey	Post survey	Pre survey	Post survey
juice	3.26	3.27	3.24	3.14
water	3.66	3.61	3.59	3.54
milk	3.36	3.16	3.31	3.24

Note. Means represent weekly intake.

Program students did not discuss healthy fluids during the focus groups. For example, the program students mentioned consuming juice 11 times, regular milk 5 times, and water 10 times. However, students did not indicate whether they increased their intake.

(4) Physical activity. Students were also surveyed regarding their physical activity prior to and at the end of the SSS intervention. Table 22 presents the means related to healthy

weekly activities in which students engage. The most commonly reported method of being physically active was through playing sports, with students in both groups at pre and post survey stating that they do this type of activity more than once per week.

Table 22

Student Healthy Behavior – Physical Activity

How often during a week do you ____?	Matched control sample (n = 384)		Program sample (n = 384)	
	Pre survey	Post survey	Pre survey	Post survey
jump rope	2.78	2.72	2.74	2.78
play sports	3.40	3.34	3.33	3.29
dance	2.53	2.57	2.55	2.57
ride a bicycle?	2.93	2.82	2.85	2.82

Note. Means represent weekly intake.

Approximately one-quarter of the students who participated in the focus groups stated that they improved their level of physical activity after starting SSS. As was mentioned when discussing impact on knowledge, students provided many more examples of participating in sports than they did the other types of physical activity listed on the survey. For instance, 44 students explicitly stated that they participate in "sports." Additionally, 34 students stated that they participate in basketball and 33 stated that they participate in soccer. Students only mentioned jumping rope 14 times and bicycling 1 time. Interestingly, despite the survey results, students at one of the program sites talked extensively about dance. This may have been the result of the inclusion of dance as an activity at their afterschool site.

Statistical analyses of program effects on healthy student behaviors. The 19 healthy behavior questions were combined into a single reliable scale for examining overall program effects on healthy student behaviors concerning nutrition and physical activity. Reliability analyses were performed at both pre and post survey on this scale. The Cronbach Alpha measure of internal consistency was 0.817 at pre survey and 0.823 at post survey. Again, a single weighted composite of the students' healthy behavior was created at both pre and post survey using principal components analysis.

A similar ANCOVA was performed to the model described earlier for unhealthy behavior. Post-survey scores on the healthy behavior factor served as the outcome in this model, whereas the pre-survey healthy behavior factor was used as a covariate. Independent dichotomous factors included the SSS intervention group variable, the administration cycle

and a variable to represent grade level. Again, grade levels were combined into the two categories of primary and upper grades.

ANCOVA results in Table 23 show the estimated means of the healthy behavior factor for each group at post survey by grade level, after controlling for pre-survey responses. The main effect of the intervention was significant ($p = 0.003$). Across grade levels, the estimated healthy behavior score for the program students was 0.19 standard deviations higher than the estimated healthy behavior score for the students in the matched control. Based on general rule of thumb guidelines, this would be considered a small effect size. The interaction between the intervention and grade level was also significant ($p = 0.000$). The estimated healthy behavior score for the program students in the primary grades was 0.42 standard deviations higher than the estimated healthy behavior score for those in the matched control. This effect was not seen for the students in the upper grades.

Table 23

Estimated Means at Post Survey, Group Differences in Student Healthy Behaviors

Grade level	Matched control sample ($n = 384$)	Program sample ($n = 384$)	Total by grade level
Primary grades (1–2)	-0.20	0.22	0.01
Upper grades (3–5)	0.02	-0.02	0.00
Total by sample	-0.09	0.10	

Note. Healthy behaviors factor scores have a mean of 0 and a standard deviation of 1.

During the focus groups, many of the students in both the primary and upper grades provided examples indicting behavior change after beginning SSS. In most cases, the students described increasing their intake of fruits, their intake of vegetables, and or increasing their level of physical activity.

Consistent with ANCOVA results, students in the primary grades ($n = 36$) provided slightly more examples of behavior change than did those in the upper grades ($n = 27$). Furthermore, both groups showed similar trends in the type of behavior change. Students in the primary grades tended to voice increases in physical activity ($n = 17$), an increase in fruits and or vegetables ($n = 14$), or a general statement concerning improvement in nutrition ($n = 5$). Students in the upper grades also stated most frequently that they improved their level of physical activity ($n = 14$), their fruit and or vegetable intake ($n = 7$), or made general improvements in nutrition ($n = 7$).

Program staff members were also asked to talk about changes that they perceived concerning students' habits. All of those post surveyed agreed that the program positively impacted student behavior. Furthermore, over two-thirds of those interviewed noted that they did perceive a positive change in healthy behaviors, especially concerning nutrition. When providing details, most noted an improvement with snacks, such as healthier foods or smaller portions, and tied the changes back to the session on healthy snacks. Although not mentioned as often, about half did indicate some increase in physical activity during the program. The staff may have perceived less impact on physical activity because, as one staff member noted, many of the students were already physically active before starting the program.

Impact of Program on Staff

A control group of staff was established so that outcome indicators for staff teaching SSS could be properly evaluated. Surveys were administered to the program staff and to staff at the control sites. Surveys were analyzed using descriptive analyses. In addition, qualitative results were produced from interviews with the program staff.

Staff members were surveyed about the personal impact of teaching health instruction. Staff members in both the matched control and the program group were more likely to report positive rather than negative agreement that their involvement had an impact on their own attitudes, knowledge and behaviors concerning healthy lifestyles. Interestingly, fewer program staff agreed that the program had a positive impact on their own attitudes about nutrition and physical activity. It is also of note that program staff reported higher levels of agreement concerning the impact of teaching health instruction on their knowledge and behaviors when compared with staff in the matched control.

Additional evidence concerning the impact of teaching SSS on program staff emerged from the qualitative data. Thirteen of the program staff who participated in the interviews indicated that teaching the curriculum had a positive impact on their life. As with the surveys, program staff seemed more cognizant of the impact of teaching SSS on their knowledge and behavior than on their attitudes. Most of the staff indicated that they had a change in behavior, and over half of the staff indicated that they increased their knowledge. In contrast, only four of the program staff members stated or provided an example of attitude change.

In most cases the SSS staff provided examples of impact concerning issues of nutrition. For example, staff indicated that they learned to read nutrition labels, healthier ways to cook, as well as specifics about food groups and portions. This in turn appeared to have an impact on habits, with a number of staff members indicating that they were able to improve their

nutrition through better control of portions. Some staff also provided general statements of nutrition habits, such as learning to take time to cook: "…I always thought that I never had time to cook at home. I'd always eat out. But I've been cooking at home more."

Less than half of the program staff indicated that the program had an impact concerning physical activity. In most cases, the impact had to do with behavior. In one case, a staff member made a specific change in that they made physical activity a priority: "I prefer to exercise." In other cases, staff members who were already active noted that they further increased their level of physical activity after beginning their involvement with the Program: "I'm trying to keep myself a lot more active because I've always been in sports."

Reach of the Program

Finally, participants in the intervention may serve as advocates for healthy lifestyles, which can result in spreading knowledge and habits to people who are not directly involved in the program. To gauge this potential diffusion effect, CRESST evaluated whether the program benefits go beyond the immediate impact on participating students themselves and extend to the families or other students at the participating school sites. The extent to which the participating school sites had differentiated effects to those that did not implement the curriculum would suggest the reach of the program beyond its target population.

It would be encouraging for intervention programs to have participants become advocates and further diffuse the program effect to those around them. Students were surveyed regarding how often they the communicated with their parents and other family members about issues related to healthy eating and physical activity. In addition, students and staff were asked about communication and impact of the program on non-participants during the focus groups and interviews.

Student Reports of Communication with Non-participants

The survey was administered prior to and following the intervention period. Descriptive mean results are presented in Table 24. Survey questions related to communication were asked using a 4-item scale: never, sometimes, a lot, and every day. For purposes of analysis, responses were re-coded with scores ranging from 1 to 4 with a score of 1 representing "never" and a score of 4 representing "every day." Among the matched control and the program students, the most common form of communication was talk with "parents about being active."

Table 24

Reach of the Program – Student Communication with their Parents and Families

Student communication	Matched control sample (n = 384)		Program sample (n = 384)	
	Pre survey	Post survey	Pre survey	Post survey
I talk to my parents about healthy eating habits.	2.54	2.38	2.47	2.45
I talk to other family members parents about healthy eating habits.	2.34	2.23	2.23	2.26
I talk to my parents about being active.	2.86	2.84	2.80	2.72
I talk to other family members about being active.	2.60	2.49	2.45	2.48

Note. Means represent weekly intake.

Students were also asked to discuss their communication with non-participants during the focus groups. In response, approximately three-fourths of the students in the focus groups indicated that they had talked with their families about the program. Only 5% indicated that they had not talked about the program, and one-quarter did not indicate either way.

When students specified who they shared information with, they primarily mentioned their mom and or their dad (n = 33 and n = 15, respectively). Students simply stated "family" in 16 cases. Only five reports were provided of sharing with siblings or extended family members, and six reports were provided of sharing with friends.

In terms of content, most of the examples of sharing focused on the major SSS content area of nutrition. Only one-quarter of the examples focused on physical activity and 18% focused on general issues such as whether the student liked the program, how the program made them feel, or whether they liked the SSS teacher.

Statistical analyses of program effects on student reports of communication with their families. The four reach questions were combined into a single reliable scale for examining overall program effects on student communication about nutrition and physical activity with their parents and families. Reliability analyses were performed at both pre and post survey on this scale. The Cronbach Alpha measure of internal consistency was 0.784 at pre survey and 0.769 at post survey. Once again, a weighted composite of the reach of the program was created at both pre and post survey using principal components analysis.

ANCOVA results in Table 25 show the estimated means of the combined scores of communication on health issues for each group at post survey, by grade level, after

controlling for pre-survey responses. The main effect of the intervention was significant (p = 0.030). Across grade levels, program students were estimated to score 0.16 standard deviations higher than those in the matched control did. The interaction between the intervention and grade level was also significant (p = 0.010). The increase in student to family communication after program intervention was disproportionally within the primary grades.

Table 25

Estimated Means at Post Survey, Group Differences in Student Communication with their Parents and Family

Grade level	Matched control sample (n = 384)	Program sample (n = 384)	Total by grade level
Primary grades (1–2)	-0.13	0.21	0.04
Upper grades (3–5)	0.00	-0.03	-0.02
Total by sample	-0.07	0.09	

Note. Communication factor scores have a mean of 0 and a standard deviation of 1.

As was already noted, about three-fourths of the focus group participants indicated that they talked about the program with their family. In contrast to the quantitative results, a greater percentage of the upper grade students (82%) than primary students (58.3%) indicated that they had talked about the program with their parents and or other family members. Both groups had almost no reports of not sharing (primary = 2, upper = 1). It should also be noted that about one-third of the primary students did not indicate whether they spoke to their parents and or families or not. In contrast, only 16% of the upper grade students did not talk about communication with their families.

About one-third of the students who participated in the focus groups also discussed whether they felt the information they shared from the program was having an impact on their parents and families. Of these students, 26 indicated that the people with whom they shared the information adopted healthier habits. In most cases the positive reports came from the upper grade students (primary = 7, upper = 16). Similarly, most of the negative reports came from the upper grade students: “They don’t listen to me because they think it’s boring.” When students provided positive reports, the examples primarily focused on the reduction of junk food and or the increase of healthy food. Students only provided five examples concerning an increase in physical activity. This matches the reports by students about what information they shared, which showed that program students tended to communicate more with their families concerning issues of nutrition than concerning issues of physical activity.

Staff Reports of Communication with Non-participants

Program staff members were asked about whether they perceived any impact of SSS on non-participants. Two-thirds of those post surveyed agreed that the program had an impact on non-participants. Furthermore, according to the 11 staff members who discussed issues of reach during the interviews, information from SSS is only being shared with those close to the afterschool programs. In most cases, staff cited examples of students telling their parents about how to eat healthier. Only one staff member provided an example concerning an increase in physical activity. Staff also saw some potential benefits to other children on-site, stating that other afterschool program participants had expressed an interest in participating in the physical activity portions of the program.

Summary of Findings

Results of the analyses suggest that SSS had some positive impact when taught in a child-focused afterschool setting. Students at the program sites had significantly higher healthy behavior scores after attending the program when compared with students at the matched control sites. The students at the program sites also showed small but significantly more frequent communication with their families (reach). At the same time, program students did not show significantly higher knowledge, attitude, or unhealthy behavior scores when compared with students from the matched control sites.

In addition, the study found main effects for grade level, and interactions between grade level and participation in terms of knowledge, healthy behavior, and unhealthy behavior. At the end of the program, a small but significant main effect of grade level was found for student knowledge, whereby upper grade students demonstrated higher knowledge scores at post survey than did those in the primary grades. Similarly, a significant interaction was found between treatment and grade level in terms of student knowledge, with upper grade students from the program showing higher knowledge scores. Significant interactions were also found in terms of behavior, with upper grade students appearing to benefit more in terms of reporting lower frequencies in their unhealthy behavior, and primary grade students appearing to benefit more in terms of reporting higher frequencies in healthy behavior. Finally, a significant interaction was found between grade level and participation, with most of the increases in reported communication (reach) coming from the program students in the primary grades.

Staff who participated in the surveys and interviews perceived positive impacts from implementing the SSS curriculum. The staff appeared to benefit mostly in terms of

knowledge and behavior. In most cases, staff indicated greater impact in terms of their nutrition knowledge and eating or cooking behavior, rather than physical activity.

CHAPTER VII:
THE CHICAGO PROGRAMS

This chapter presents the case studies of the two Chicago programs. First, a historical background of Chicago will be presented, followed by the findings on CCJD, and finally the findings on Association House of Chicago. Each case study includes a description of programs offered at the community organization. Discussions of staff training and experience, program fidelity, adaptation of the program, the student perspective on the program, as well as the impact of the program on students, staff, and non-participants are also included.

Chicago: Historical Background

In the beginning of the 20th century, South Chicago provided many with employment in the flourishing steel industry, which supported one of the world's largest sources of steel. Newly arrived immigrants, especially, found South Chicago to be a place where they could find work and sustain their families. During this time, White ethnic immigrants such as Swedish, German, Irish, and Italians composed the majority of the immigrant community in this area. Beginning in the 1930s, the immigrant population shifted, and many Latino immigrants began to arrive in this area of the city. The African American population also began to increase. As these demographic shifts occurred, so did the economic landscape of the community. Beginning in the 1960s, steel production drastically decreased in the city. Although over 20,000 workers were employed in the steel industry during World War II, this number plummeted to 600 in 1990. In April 1992, steel production stopped indefinitely in South Chicago, taking 40% of the communities' jobs with it. As a result, large-scale poverty plagued the community, which was now predominately Latino and African American. Along with the decline of income, social services deteriorated, including public education. Crime and gang violence increased. Social and economic alienation and racism further confounded the experiences of South Chicago residents. It was from these social and economic conditions that led to the creation of CCJD to work towards positive change in the community (Centro Communitario Juan Diego, n.d.).

CCJD

CCJD was established in Southeast Chicago in the 1990s by eight Latina community members. Since its inception, CCJD has been a grassroots community-based organization whose mission has been to promote leadership and social change, while serving those in need. The CCJD provides the community with programs focused on social services,

healthcare, education, and community organizing. At the time of the study, CCJD employed over 70 staff members.

Programs

The following describes the applicable programs offered at CCJD other than SSS.

Health programs. CCJD provides several programs that focus on disease prevention, management, and leading healthy lifestyles. One program central to CCJD's efforts for health information is *Promotoras de Salud* (Community Health Promoters). In this program, community members are trained by the Chicago Department of Health, the Red Cross, and other health organizations to understand better about health problems that are prevalent among residents of South Chicago. Such diseases include diabetes, HIV/AIDS, and asthma. Once health promoters have completed certification in this program, they can become a part of the *Una Visita Cuenta* (A Visit Counts) program. Health Promoters make appointments with community members to go to their homes and share information on disease and disease prevention. Health Promoters also work in an HIV/AIDS prevention program that targets Latina women, young adults, and the Lesbian, Gay, Bisexual, and Transgender (LGBT) community.

Literacy and education programs. CCJD recognizes that education is the key to success among adults and youth. Thus, they have made a programmatic effort to encourage lifelong learning for the entire family. The *Grupo Amigo* afterschool program provides free tutoring services and a safe place for children to go afterschool. An extension of this afterschool program is the *Un Dia en el Sol* summer program, where children and parents can participate in learning activities, physical activities, and field trips during the summer months. CCJD also provides free classes for adults who want to build literacy skills. The *First Literacy* program offers classes to build literacy skills in participants' native language, Spanish, whereas the *English as a Second Language* (ESL) program provides practical language skills in spoken and written English.

Organizing programs and social services. CCJD provides several programs that inform community members on how to protect their rights and neighborhoods. The Arnold Mireles Human and Community Rights Program was established to raise awareness of human and tenant rights for residents of South Chicago. This program is an effort to help fight against unhealthy and unsafe living conditions to which some property owners

unlawfully subject their low-income tenants. The program was named after Arnold Mireles, a former CCJD staff member, who was tragically murdered by a local slum landlord.[6]

To facilitate efforts of community watch programs, CCJD collaborates with 10 local block clubs and the Chicago Police Department Chicago Alternative Policing Strategy (CAPS) program who participate in community policing that works to fight drugs and crime in their neighborhoods. CCJD supports other collaborative community projects, such as maintaining community gardens, emergency food aid, clothing donations, and child car seat programs. Moreover, the organizations also form partnerships and collaborations with research institutions to provide access to participants, or receive training to conduct research in the community.

Staff Training and Experience

The program staff at CCJD has extensive training and work experience. More specifically, the program coordinator has worked at CCJD since 1996 when the organization obtained its non-profit status. Over this time she has worked in various capacities including as coordinator of SSS, and within an ESL program for adults, a literacy program with the public library, and a parent organization. The assistant coordinator also reported working at CCJD for over 4 years in different capacities. Both staff members reported completing a bachelor's degree. Furthermore, both staff members have received training in health instruction through CCJD and other organizations. This includes but is not limited to CPR certification, training concerning asthma and diabetes, and informational classes about HIV and breast cancer. Considering the population served at CCJD, it is also important to note that both staff members are Latina and are fluent in Spanish.

During the interviews, both staff members described their responsibilities concerning SSS. The program coordinator at CCJD oversees implementation of SSS for the afterschool program, as well as other off-site locations such as local parent groups and schools. In this role, she prepares all materials and lessons for the afterschool program and oversees the lessons prepared by the program staff teaching off-site. The assistant coordinator also helps with preparations and implementation at the afterschool program.

Program Fidelity

As with the outcome evaluation of the LA's BEST sites, the case study uses the framework of program fidelity to explore issues of training and implementation specific to

[6] On December 29, 1997, Arnold Mireles died after being shot by two teenagers hired by a local slum landlord. For more information on Mireles see http://hillconnections.org/ri/mireles9ja.htm

SSS at CCJD. This includes the issues of context, compliance, and competence (see Chapter IV for more information about program fidelity).

Context – Training. Prior to implementation of the child-focused curriculum, CCJD experienced a change in program coordinators for SSS. Despite this, both staff members reported previous experience with the curriculum. Furthermore, during the interview the program coordinator stated that she was previously certified in the curriculum. Despite this, she noted that she did not develop a full understanding of the curriculum prior to becoming one of the program staff: "I knew a little bit, I did. Even though I was certified under that, I guess I didn't give my 100% into that. I knew that I wasn't going to give the classes."

Context – Resources. During data collection, the program coordinator and the assistant coordinator differed in their opinions concerning the adequacy of support and resources for SSS at their site. On the survey, the program coordinator gave a rating of 5 (*strongly agree*) whereas the assistant coordinator gave a rating of 2 (between *neutral* and *strongly disagree*) concerning this issue. Likewise, during the interviews the program coordinator stated that the materials were adequate, whereas the assistant expressed a desire for more materials and space:

> A larger space. Um, second, if we had more examples of food, because we can bring examples, but we can't bring a large variety, and also prepared foods that the kids like because they ask questions about other foods, but the problem is we simply can't bring those foods because of limited economic resources.

Compliance – Lessons delivered as planned. Each session within the SSS curriculum was organized using a 5-step lesson plan and emphasized the four key messages concerning healthy lifestyles (e.g., food groups, portions, daily activity, and gradual change). During the observation, the site emphasized the four key messages and clearly implemented the review, hands-on activities, and discussion features of the curriculum. The research staff was unclear whether the introduction feature was evident during the observation. Furthermore, the assistant coordinator indicated during her interview that the students became bored during the lectures. The program coordinator supported this statement, and added that students particularly like the hands-on games and music activities featured in the curriculum: "What they really, really enjoy are the games, the songs and the dancing and all of that."

Compliance – Lessons delivered effectively. The observation data revealed that the program staff at the CCJD afterschool program made use of a variety of teaching strategies while implementing SSS. That is, observers noted the use of lecture, class discussion and hands-on activity, all of which are emphasized in the 5-step lessons. In addition, the research

staff noted the use of cross-content integration[7] (in this case, the combining of history and nutrition) and "real-world" connections by the program staff.

The observation data also revealed high levels of engagement (80% or more of the children engaged). The students demonstrated their engagement through behaviors such as listening and watching, active participation in hands-on activities, and speaking or reading when appropriate. For example, during the lesson most students engaged in conversations among each other and with staff to discuss and decide from what country their respective foods originated. The students also demonstrated anticipation and excitement in learning about the origins of the foods. They also demonstrated their engagement and understanding of the lessons through their responses to questions posed by the staff regarding their knowledge of nutrition and physical activity. The only instances of off-task behavior were one student being passive and another student doing other work.

Competence – Staff efficacy. The program staff at CCJD seemed to have high efficacy concerning their ability to implement the SSS curriculum in a competent manner. During the observation, both staff members appeared to have a strong understanding of the children with whom they were working and how to meet the children's needs while maintaining the principles of the program. This enabled the staff to be responsive to the needs of all students during the observation. The students appeared to feel comfortable as well as physically and emotionally secure in discussing their eating habits, preferences, weight, and level of physical fitness. When students contributed to the lesson through their participation in the activity or in responding to questions, they were verbally rewarded. These verbal rewards seemed to encourage even more enthusiastic participation.

During the interviews both of the program staff members also discussed their ability to keep students motivated during SSS instruction. As an example, the program coordinator noted that she tries to keep the review portion of each session short and emphasizes its importance by explaining that it helps keep students who miss a session informed:

> It's not a lot of review. They keep hearing it and keep hearing it and keep hearing it, the same...It's like, "I don't want to be here anymore." I try to do that just twice. Then it changes. That's it. When we get all together we talk about what we learned. What was it that [the student] didn't learn because he wasn't here?

[7] According to Hannafin (1996), "cross-content integration attempts to minimize the explicit or implicit boundaries of subject matter by featuring information, concepts, and skills in varied contexts" (p. 107).

She also pointed out how she uses the snacks as prizes to motivate the students to attend each session:

> I have to do different things in order for them to come. I use the snacks themselves. Basically they give them a prize afterwards. "If everybody comes, you'll get a prize afterwards." Everyone's like, "I already came….Don't forget to sign my name." They think that they're doing it. Basically that's what I do.

The assistant coordinator also discussed strategies she uses to maintain student engagement. For instance, she tries to make the students feel like they are learning something new:

> No, I adapt precisely because the children have a great capacity to understand. They have shown that they are very interested in the curriculum. For example, the session on where the seeds come from. They are very interested to know from where. So when you present something new, and you keep the kid's interest, they learn something new.

Another example she provided involved using a map to keep the lesson feeling new:

> When I am teaching a lesson, for example, the lesson on where seeds come from- I have a big map and I try to show them the places, the continents. If it is something new that they are learning the kids are interested, totally.

The assistant coordinator also noted that she and the program coordinator try to find out what activities students are interested in when planning their lessons:

> First, we try to find out what are they interested in and in what activities. When we find an activity that the kids like, we use that one. They like it because it comes from their culture and they play it with their mothers. Another strategy we use for games or physical activity is to find out what interests them, what they do already, so that they will do them on their own. Or another option is to find an activity that they can do at home.

The program staff at CCJD found ways to adapt their practices to keep students actively engaged. That is, the staff emphasized activities that students enjoy. They noted a desire to keep the activities feeling fresh and limiting repetitiveness. Furthermore, they used a system of praise and rewards to motivate attendance and engagement.

Competence – Staff perceived value of the program. On the surveys, the program staff provided differing opinions concerning the importance of SSS and other health instruction to CCJD. Although the program coordinator gave ratings of 5 (*strongly agree*) to the importance of both, the assistant coordinator provided a rating of 2 (between *neutral* and *strongly disagree*) concerning both. Despite this, the assistant coordinator stated during her interview that she believed the program was very important for the community:

> Well, just that it is very important to continue the program, to continue the program in a community where people don't know that much about these things—the people can understand and the people can have options to make healthier decisions and have healthier lives, because with the experience I have had with *SALSA*—they have tried, the people have made changes, to buy more vegetables, more fruits. But with the little change that they can do and that their resources permit, they are making changes. They know what it means to be healthier, or what it means to become healthier in the future. This is why I think that it is important.

The program director at CCJD also expressed her value of the SSS program by talking about how happy it made her to be a role model concerning healthy lifestyles:

> My experience has been a great experience, for me....Just being a role model for other people really helps me out....Do I like giving out the class? I love giving out the class. I can do what I want to do. I can do it my way. I don't have to actually go towards the book stuff. I guess I like being a leader. I don't know. I like the change. I like to see the people change.

Furthermore, she pointed out that the focus on Latino culture was something that she enjoyed about the curriculum: "I like the *Salsa, Sabor, y Salud* curriculum. It talks about health. At the same time it talks about being physically active, but around the Latino culture. That's what I really enjoy."

Adaptation of the SSS Program

Because SSS was taught in multiple settings and to multiple populations at CCJD, adaptation had been vital to its successful implementation as a child-centered program in an afterschool setting. Not only were adaptations made to heighten student engagement, but they focused on issues important to maximize absorption of the lesson content. That is, the program staff reported making adaptations focusing on the age and cultural appropriateness of the curriculum for their students. Furthermore, the program staff collaborated to ensure that all adaptations that they made adhered to the goals and principles of the SSS program.

Age appropriateness. Because of the mixed ages of the student participants in the SSS program at CCJD, the staff explained that they had to modify the curriculum significantly in order to keep all students engaged with the lesson. The program coordinator felt the activities listed in the grade level specific guides (3- to 7-year-olds and 8- to 12-year-olds) were not appropriate for her students. For instance, she felt that the curriculum guide included too much talking: "Yes, it was too much talking. It was too much talking. They were bored." As a result, she reported during her interview that she adapted the lessons to have more brief discussions and focused more on the hands-on activities. The program coordinator also stated

that she had to balance out the older students' desire for advanced nutrition information and the younger students' ability to understand:

> That's why I had to actually teach him how to read the [food] labels. At the same time, I have to teach it to him and the other little kids in the language that they know how to…Even though I wanted to teach him [the oldest student] more, I could only teach them three. It's the basics, which is the fat and the carbs, the basic three. He [the oldest student] wanted to learn more.

The assistant coordinator added that she had brought in outside materials to the lesson plans in order to keep all of the students challenged.

Cultural appropriateness. Both of the program staff members had established relationships with the student participants, their families, and the greater community. As a result, the program staff appeared to know what was culturally appropriate for their audience. For example, the staff spoke in Spanish during the lessons to ensure understanding. The staff was also aware that the inclusion of culture-based activities was interesting to the students at their program. As stated by the assistant coordinator:

> First, we try to find out what are they interested in and in what activities. When we find an activity that the kids like, we use that one. They like it because it comes from their culture and they play it with their mothers. Another strategy we use for games or physical activity is to find out what interests them, what they do already, so that they will do them on their own. Or another option is to find an activity that they can do at home.

The program coordinator also pointed out that she had to go against some cultural norms in her effort to improve the knowledge and habits of the students:

> In the Hispanic culture it's a bad thing for anybody to turn the thing around and read it. I asked the ladies themselves. They're like, "We don't do that. It's embarrassing." I said, "It's not embarrassing." They said, "Yes, because everybody is going to think I'm on a diet." I said, "No, it's not because you're on a diet." Even the kids said the same thing, "I'm not on a diet. Why am I going to look at the thing?" I said, "No, it's not that you're on a diet." It's a nutrition label that we have to actually look at."

Student Perspective on How the Program Works

During the focus groups students were asked to talk about their opinion of SSS and the program staff. Although the students indicated that they felt comfortable talking about health and eating healthy foods with the program staff, they were not able to state why they felt this way. In contrast, many of the students were able to give examples for what they liked about the program and what changes they would suggest. In both cases, the focus of the examples was around content and activity. The students talked about their enjoyment in getting to learn

new things about healthy food and suggested that they would like to learn even more about fruits and vegetables. Students also pointed out that although they liked the hands-on activities, they would like to see more variety, more physical activity, and more sports. Interestingly, students did not make any suggestions concerning the deletion of activities or features of SSS.

Evidence of Impact

Impact of the program on students, staff, and non-participants was assessed using focus group, interview, and observation data. Results from the student and staff surveys are not included, other than demographic data, because of the small sample size.

Student demographics. The SSS program at CCJD included 14 students, 11 of whom participated in data collection. Slightly more than half of the students were in Grades 1 or 2. Just over one-third of the students were in Grade 2, whereas only one student was in Grade 3. There were slightly more girls than boys in the sample. Almost two-thirds of the students spoke both English and Spanish. Furthermore, four of the students were Spanish only speakers. Over two-thirds of the students reported living with adults who were Spanish only speakers. In addition, all but one student reported that one or both of their parents were born in Mexico.

Evidence of impact for students. During the interviews, questions were asked about the impact of the SSS program on the students. Interestingly, the only evidence concerning attitudes was from the program coordinator who equated attitude change to motivation and acceptance of the program:

> When I first gave them the class I said, "They're not going to like it. They're not going to accept it." I see them so motivated. The kids that I really thought weren't going to accept it, they've actually accepted it….If they learnt it that much, that's because I guess they're interested in it.

Neither the assistant coordinator nor any of the focus group participants reported any impact or provided any examples of attitude change for students.

In contrast, both the program coordinator and the assistant coordinator reported that they believed the students were learning about nutrition and physical activity. More specifically, the program coordinator stated that she saw evidence of learning through the questions students asked and the statements they made during the program:

> The way that I know that they are doing at least little changes, is because they're the ones that answer question that I always ask. I'm going to be honest with you. I don't know how many of the food groups you have to eat. They know it. They know it by memory.

Student participants in the focus group also provided general descriptions of what they learned in the program. For example, students pointed out that they had learned how to be healthy, as well as information about physical activity, healthy foods, and portions. One student also demonstrated his knowledge when stating that he talks with his family about the importance of not eating greasy foods.

Likewise, both staff and focus group participants provided evidence that the program has had some impact on student behaviors. When asked specifically about this issue, students mentioned reducing their consumption of unhealthy food, an increase in physical activity, and a reduction in sedentary activities. The program coordinator echoed this when she talked about the changes she has seen in the physical activity level and nutrition habits of one of the older children:

> [He] used to eat a big thing of chips…The big bag, he used to finish it himself. Ever since I taught him how to check the label, he came up to me yesterday. He came up to me and said, "Guess what…" I said, "What?" "I only ate half of it this time. I make little steps." I said, "Very good." He tries to show off, "I'm doing it. I'm doing it." The mom herself told me, "Yes, yesterday he came and started doing pushups." A little something is better than nothing.

In contrast, most of the evidence provided by the assistant coordinator consisted of statements made by the parents to her about changes they witnessed at home: "Yes. We have kids that have taken what they have learned here at Juan Diego and share it with their mothers. They say that their kids are changing in how they eat, they are eating healthier foods." Another example involved a statement by a parent about her child making slightly healthier snack choices:

> Yes. For example, I have a child that just came in last week, he ate a lot of cheetos. And now his mother tells me that he prefers to eat baked potato chips. So, it's not a big change, but a small step. She says that he didn't eat vegetables, and now he'll eat raw vegetables with dressing, so yeah, it's a change, right?

Evidence of impact for program staff. During the interviews both of the staff members indicated that teaching the SSS curriculum had had a positive impact on their life. Although the program coordinator did note that she "learned a lot," both staff members primarily talked about the impact of the program on their behavior. The program coordinator noted reading nutrition labels and becoming physically active. The assistant coordinator provided greater detail concerning changes that she had made concerning both nutrition and physical activity. This included making healthier choices concerning cooking oil, fatty foods, intake of vegetables, and daily physical activity:

> Totally, in the way that I cook, I changed the oils that I use. When I buy meat, I try to buy the meat with less fat. I feed my family more salads, vegetables, and instead of candy, I buy a lot of fruit, when I can, I buy fruit. The fruit that I do buy, sometimes they won't eat the whole thing, so what I do is blend them and then they will eat it. We walk everyday and when we don't do this, my daughter has a dancing video game where you move around a lot, so we'll take turns playing the game, especially when it's too cold outside for the walk. So, yes, there have been changes in my life.

Program Reach: Evidence of impact for non-participants. Some of the students reported that they talked with their parents about the program. In most cases, the students talked about how they shared the information, such as showing their parents handouts from the program or just talking. In addition, one student gave a concrete example of what he had told his parents and another student stated that he had told his parents he liked the program.

The assistant coordinator also expressed the opinion that the program was having an impact on non-participants. When the students brought home new habits, the parents and siblings learned new habits as well. More specifically, she pointed out that there appeared to be some change in physical activity and the variety of foods eaten: "The mothers have been more physically active with their children. They are making sure that they eat a lot the food groups during the day." Despite this, she also pointed out that from her experience at CCJD the parents seemed to have poor knowledge about portion sizes and the actual foods in the different food groups.

In contrast, the program coordinator expressed a cultural bias that adults would not benefit from the program unless they actively participated. That is, they would not change their habits based on what they were told by their children: "Do they accept it from the kids giving it to them, no." Furthermore, she pointed out that when parents were asked to contribute food to the program they provided unhealthy snacks: "We ask the parents to bring something for all the kids to eat…What they end up bringing is…chips."

Evidence was also provided during the interviews that the program was having an extended impact on the families of the program staff. As was noted before, the assistant coordinator changed how she fed her family and the activities that they did. The program coordinator also noted that she had changed her family's habits in an effort to prevent her son from getting diabetes like his grandmother: "My mom is diabetic….I don't want my son to get it. He doesn't want to get it either. We try to take care of ourselves."

Association House of Chicago

Association House of Chicago was established in 1899 to serve as a resource to provide services that meet community needs. Since inception, Association House of Chicago programs have adapted with each changing era to more closely meet the current communities' needs. Association House of Chicago's core mission is to offer services to economically disadvantaged individuals and families.

Programs

The following describes the applicable programs offered at Association House of Chicago other than SSS.

Behavioral health. Behavioral Health Services provides educational, health, mental health, and vocational skills development for community members. Services offered by Behavioral Health would include afterschool programs for youth, job readiness development, as well as clinical and therapeutic services for those with mental illnesses, and drug and alcohol addictions.

Child welfare. Association House of Chicago provides a Child Welfare service that seeks to find a loving family for foster children. From infants to teens, over 100 children are placed in a foster home each year. These services include foster care placement, home-based counseling, recruitment of foster parents, licensing of foster homes, and adoption service assistance to children and families throughout Chicago.

Community services. There are several programs housed within Community Services, offering the opportunity for continued education. *El Cuarto Año* (The Fourth Year) is Association House of Chicago's high school diploma program for community members who do not have a high school degree. The Learning Place offers various educational courses in ESL, Spanish and English literacy, computer training, GED preparation, and citizenship preparation. The Arts Program offers opportunities for visual and performing arts activities for the community. In 2006, an additional program was added, the Center for Working Families, which offers job placement services, financial education and support for increased access to government benefits, and emergency resources.

Staff Training and Experience

The program coordinator started working at Association House of Chicago during the spring of 2007. In addition to teaching SSS, she oversees the development of programs, and campaigns at Association House of Chicago and in the community concerning healthy lifestyles. Despite her short tenure at the organization, she brought many applicable

experiences to the job. She received a bachelor's degree in community health education and obtained certification in asthma and CPR. With her degree she oversaw the health department at the Puerto Rico Culture Center, teaching classes and implementing campaigns concerning health issues such as obesity and teenage pregnancy. For the 3 years prior to her work at Association House of Chicago she also taught parenting classes and human health to teenage mothers and pregnant teens at a high school in the community.

While implementing SSS, the program coordinator receives assistance from one other staff member at Association House of Chicago. This staff member helps primarily with supervision. During the two observations, the program coordinator also received assistance from multiple staff members to prepare materials and supervise students during the group and whole class activities.

Program Fidelity

As with the outcome evaluation of the LA's BEST sites, the case study uses the framework of program fidelity to explore issues of training and implementation specific to SSS at CCJD. This includes the issues of context, compliance, and competence (see Chapter IV for more information about program fidelity).

Context – Training. During spring 2007 the program coordinator began employment at Association House of Chicago. As a result, she was not able to participate in the NLCI training prior to implementing the curriculum for the year. To compensate, the program director communicated with staff at other organizations in Chicago about their experiences and recommendations concerning the SSS curriculum.

Context – Resources. During her interview, the program coordinator reported having adequate resources, materials, and physical space for conducting the program. However, she explained that they needed more staff training. She was not yet able to participate in the NLCI training and she wanted the new trainer she hired to be certified in the curriculum as well. She also pointed out that this would enable the new trainer to receive a kit of her own. Finally, the program coordinator noted that she will hire more staff in the future for the program if funding allows: "I only have one staff [member]. We are trying to hire another person, but I don't know about it in terms of funding. I think she's great. I think she's going to do well."

Compliance – Lessons delivered as planned. As was noted before, each session within the SSS curriculum was organized using a 5-step lesson plan and emphasized the four key messages concerning healthy lifestyles (e.g., food groups, portions, daily activity, and gradual change). During the primary and upper grade observations, the site emphasized the

four key messages and clearly implemented the introduction, review, nutrition and physical activities, and discussion features of the curriculum. Furthermore, the program coordinator stated on her post survey that she covered the four key messages at her site. Furthermore, she indicated that she "frequently" implemented the introduction, nutrition activities, and physical activities from the curriculum guide. In contrast, she stated that she only "sometimes" implements the review and discussion features of the curriculum.

Compliance – Lessons delivered effectively. Data collection revealed that the program staff at Association House of Chicago made use of a variety of teaching strategies while implementing SSS. More specifically, both of the observations and the staff post survey indicated that the program coordinator used class discussion, hands-on activity, and grouping strategies. The research staff also noted some use of lecture and teacher modeling with the upper grade students, and the making of "real-world" connections with both primary and upper grade students.

The observation data also revealed high levels of engagement (80% or more of the children engaged) for the upper grade students and mixed levels of engagement for the primary students. Students in both groups primarily demonstrated their engagement through listening and watching, speaking when appropriate, and participation in hands-on activities. For example, the primary students showed their highest levels of engagement when doing a hands-on nutrition activity and when doing a sack race. The only off-task behaviors were the occasional disturbing of others and playing around. For the upper grade students most of the off-task behavior occurred early in the session when asked to review the food pyramid, and when reviewing answers following the hands-on nutrition activity. In contrast, primary students showed off-task behavior at the beginning and middle of the session.

Competence – Staff efficacy. The program staff at Association House of Chicago seemed to create a positive program environment for the students. Staff members remained connected with the students throughout the sessions observed. It was evident that students were made to feel physically and emotionally secure regardless of eating habits and preferences, weight, and level of physical fitness. None of the students appeared to have discomfort at any point during the observations. Furthermore, all students were provided the opportunity to participate in the activities and seemed to be positively supported by the staff during their participation. For example, staff verbally rewarded students when they answered questions correctly.

During the interview the program coordinator also discussed her ability to keep the students interested during SSS. As an example, she mentioned that she tried to get the students to see her as a peer rather than as an authority figure:

> Because I think it's a barrier and more for me because they know that I'm the Supervisor of the program. I think it's kind of a barrier if I go and I'm the Supervisor and they are the students. I want them to know that I'm not a Supervisor when I'm doing *Salsa, Sabor y Salud*. I'm their friend.

As part of her effort to act like a peer she mentioned that she changed into casual clothes: "Also another thing that was good is that I always change my clothes to work with them. I look sporty. I wear my jean shoes…I'm very much their age."

During the observations, the program coordinator used an exaggerated or theatrical presentation style to keep students engaged. She echoed the use of this strategy during her interview:

> I forgot to mention that another background that I have is theater, so I can use a lot of theater with the children. With the little ones it's more exaggerations. They like that when you talk like that and when you do certain mimics.

Finally, the program coordinator mentioned that she tried to provide interesting information and use completion to keep students interested:

> [I talk about] a lot of interesting information that I found on the Internet. There were a lot of questions and answers. A lot of competition games between boys and girls. They love to compete.

The program coordinator adapted her practices to keep students interested during the program. While not requiring participation, she tried to encourage participation through the inclusion of competition. She also tried to get the children to relate to her through adapting her dress and behavior. Furthermore, she tried to use theatricality and information from the Internet to keep students interested during discussion portions of the curriculum.

Competence – Staff perceived value of the program. On the surveys, the program coordinator provided differing opinion concerning the importance of SSS to Association House of Chicago. Although she gave a rating of 5 (*strongly agree*) to the importance of the program on the pre survey, she provided a rating of 3 (*neutral*) on the post survey. Interestingly, she provided a rating of 5 (*strongly agree*) to both pre and post survey concerning the importance of health instruction in general at Association House of Chicago. Furthermore, on the post survey she agreed that she was personally satisfied with the program and believed that the children were as well.

Adaptation of the SSS Program

As with CCJD, Association House of Chicago has offered SSS in multiple settings and to multiple populations within their community. Since adopting the program, Association House of Chicago has offered SSS to families, mentally disabled adults, teenagers, and elementary-age children. The child-centered iterations were both offered as part of the afterschool program at Association House of Chicago. The following section presents the adaptations that were made to the curriculum to ensure its appropriateness for the children at the afterschool program.

Age appropriateness. Association House of Chicago offered separate SSS classes for the different grade-level groups. As a result, the program coordinator explained that she adapted her teaching strategies depending upon whether she was working with the primary students or the upper elementary students. With the primary students she reported being more theatrical and tried to emphasize having fun. One way that she did this was by having the students compete against each other in groups. In contrast, with the older students she tried to be relatable by dressing casually and acting more like a friend. She also noted that she was able to have longer discussions with the upper grade students because of their increased ability to focus.

Cultural appropriateness. During her interview, the program coordinator noted that she liked the cultural component of the SSS curriculum. She felt that it was appropriate for the Mexican and Puerto Rican children who attended the afterschool program: "I want to say the sessions are pretty culturally adapted for them. That's something that I think is really nice because it is for them." Despite this, she explained that the music did not seem very appropriate. Not only did the African American children at the program not understand the Spanish language songs, but the Latino children also found the music dated and boring:

> No, it was after the first session because a lot of the children were kind of bored with the music because the music is really old. I don't want to say really old music, but it's music that they don't know. They never heard it. So the first session was kind of, "What type of music is that? I don't like the music. It's so slow. I don't understand." We also have African-American children and they don't understand Spanish, so when you have another language playing, it's hard for them to understand.

As a result, the program coordinator indicated that she adapted how she used the music included with the SSS kit. Rather than having activities center around the music, she used the music to set the mood for the room:

> So we use the *Salsa, Sabor y Salud*, the music that you have in the background when the children are doing activities, hands on or when the children are doing physical activities

> they use another type of music that's faster. They listen to music that is up to date and they know.

Furthermore, she stated that she had integrated outside music into her sessions: "We include another different music to the one that you have [in the kit]. We also use the music that *Salsa, Sabor y Salud* brings, but for activities that are bigger activities where we use faster music."

Session structure and activities. Another reason the program coordinator adapted the curriculum was to meet the energy level of the students. On days when students at the afterschool program seemed more active, she adapted the order of the activities within her lesson plan:

> Also, in terms of how the schedule is for the activities, sometimes we do it before what they are eating and then what they are playing. It depends on the mood of the students. Sometimes the children come here full of a lot of energy, so we do the first part, which is the exercise part.

The program coordinator also added "ice breaker" activities during some sessions to help calm the students down before starting the main curriculum:

> You can see if the children are roaming through the halls. You know that this is the day that they need to put all of their energy out. We try to do ice breakers like the Musical Chairs. We try to invigorate activities. That happens once or twice, but not always.

As a consequence, the program coordinator suggested the need for more physical activities during each session, explaining that her students needed more variety:

> I think they should be including more physical activities because they only give you one per session. I think they should be doing two or three. They give me 20 minutes to do the hula-hoop, but the children do it, and when they get tired, they want to move onto other things.

Student Perspective on How the Program Works

During the focus groups, students were asked their opinion of the program staff at SSS. In contrast to the students at CCJD, the students at Association House of Chicago indicated that the program staff do not did anything to make them comfortable talking about health and healthy eating. Furthermore, one primary grade student stated that the staff made him "do the healthy stuff." This contradicts what the program coordinator said during her interview about not requiring participation during physical activities.

Students were also asked their opinion about the program itself. Although both grade-level groups noted that they like the games, the primary students focused on the hula-hoops and the upper grade students focused their comments on the activities with balls. Students from both groups also mentioned that they like the food and the opportunity to learn new things. When making suggestions for the program, the primary students echoed some of the comments made by the program coordinator. That is, the students stated that they would like to have more parties and would like to see more variety: "…if we could do more different activities." Upper grade students suggested using real food instead of pictures of food during nutrition activities and the inclusion of "better games." Some of the upper grade students also suggested the sedentary activities of television and videogames, although these seemed more focused toward the afterschool program than the SSS activities.

Evidence of Impact

The impact of the program on students, staff, and non-participants was assessed using focus group, interview, and observation data. Results from the student and staff surveys are not included, other than demographic data, because of small sample size.

Student demographics. The SSS program at Association House of Chicago included 21 students. Over three-quarters of the students were in Grades 3 through 6. Furthermore, 28% of the students were in Grade 5 and none of the students were in Grade 2. There were twice as many boys as girls in the sample. Over two-thirds of the students spoke both English and Spanish. Furthermore, five students were English only speakers. Only two students reported living with adults who were Spanish only speakers. Just over one-third of the children were Mexican American. The remaining students came from Puerto Rican and African American families.

Evidence of impact for students. During the interviews and on the staff post survey, questions were asked about the impact of the SSS program on the students. Although the program coordinator indicated on her survey that she believed the program had impacted student attitudes and knowledge, she was unsure about the impact of the program on healthy behaviors. Her interview supported her response concerning knowledge. More specifically, she interpreted the students to have improved knowledge because of their ability to answer questions during the program. For example, she stated:

> One of the things is that we did for the sessions when we needed to plant something we planted tomatoes. I asked, "What is a tomato? Is it a fruit or vegetable?" "It's a vegetable." "No, it's a fruit because it has seeds." They remember that.

Student participants in the focus groups also talked about what they learned in the program. For the most part, the primary students talked in generalities. For example, students mentioned putting foods in the right order on the food pyramid and mentioned that food groups were healthy. Despite this, a few of the primary students did make the connection between having a healthy lifestyle and having more energy: "It gives you energy to move in the morning, and especially the oranges in the morning and the juice…in the morning. And especially apples, it give you energy every day." Another primary student made the connection between physical activity, nutrition, and strength: "Be physically active is because to be stronger and play games, physical activity. You can get strength by eating this and doing this."

When asked about what they learned, the participants in the upper grade focus group focused primarily on food groups. For instance, students mentioned learning about the food pyramid, as well as where to put sugar and fruits within the pyramid. One student noted, "We learned where fruits and vegetables come from and what are vegetables and fruit." Yet other students provided messages that they learned such as "it's important to be careful what you eat" and you should not "eat the same foods every day." Only one student mentioned portions, stating: "How many fruits we need to eat a day. It's about three."

Participants in the focus groups and the interview also both talked about the issue of whether the program had some impact on student behaviors. When asked specifically about this issue, students of all ages mentioned eating more fruits and vegetables. Primary students also talked about getting more physical activity, playing sports more, and watching less television. In contrast, and supporting her post survey response, the program coordinator was ambiguous about whether students were changing their behavior as a result of the program. Furthermore, as with the staff member from CCJD, she blamed culture for why children might not be able to improve their behaviors:

> I just see the children once a week. So it's kind of difficult to see if they made changes. I don't have any contact with the parent either, so I can't talk with the parents to see. One of the things is that it's so difficult to be a child and tell your father, your mother, your parents, "No, mom. I don't want to eat that. Make me something healthy." We live in a community where the parents don't make food for the children or they just go to a place, so it's difficult for the children to tell their parents they won't eat something and to give them something healthy. They eat what they get.

During the interviews, neither the focus group participants nor the program coordinator talked about the impact of the program on student attitudes.

Evidence of impact for program staff. Despite her extensive experience in health education, the program coordinator noted that her involvement with SSS was still able to impact her life. On her post survey, she agreed that she had seen a positive impact on her attitudes, knowledge, and behavior. Furthermore, she talked during her interview about the level of awareness she gained from the program about why she should care about being overweight:

> Also, I think it helped me a lot in terms of me personally because I'm overweight. Right now, I'm more conscious with the things that I eat. Sometimes I feel guiltier because when you eat and you don't know a food can cause something or you don't know how fat you're making your body, you eat it and blah, blah, blah. But when you eat and you know you feel so guilty.

During her interview, the program coordinator also credited the program with giving her knowledge of what to teach her own child about nutrition and physical activity:

> So *Salsa, Sabor y Salud* gave me a lot of information in terms of how to deal, and how to work with children, and nutrition, and how to make more physical activity. I think that's something that I'm going to have with me in a personal statement to my daughter and will try to be more physically active.

Evidence of impact for non-participants. Some of the students in each of the focus groups reported talking with their parents about the families. In most cases, the students mentioned what they said to their mothers. In all three cases where students provided a detailed example, they mentioned that their mother had been receptive to the suggestion. For instance, one of the primary students talked about telling his mom about getting more physical activity and eating less junk food:

> I told my mom that we did exercise. Then I told her we eat healthy foods. I told her that we got more exercising and we learn more about eating healthy foods. We learn more about not eating so much fast food anymore…. She stopped eating fast food from MacDonald's. She started cooking at home again every day.

Another primary student said that he told his mom about the program and the positive result on what his mom cooks:

> Yes. I told her about the plants. I told her about all the sports we were doing and what we did, and what we can eat to change it. She always cooks at home. She's been cooking more soup. Vegetable soup.

One of the upper grade students also provided an example of what he told his mom: "Not to put a lot of salt on the food and not to get fat. She said okay."

Summary of Findings

This chapter provides an in-depth examination of two community organizations in Chicago which have implemented the child-focused SSS curriculum in afterschool settings. Each program was examined concerning its program fidelity, adaptations to the curriculum that was provided by Kraft and NLCI, and the perceived impact of the curriculum on students, program staff, and non-participants.

Program context includes staff training, staff experience, and access to resources. Overall, the program staff members at the Chicago sites were well-qualified. Although only one of the three staff members who participated in data collection had received training in the curriculum, all had bachelor's degrees and had participated in other health training. Furthermore, both of the program coordinators had extensive work experience in the field of health education and or in the community being served. Regarding resources, both coordinators felt that they had adequate support and resources to run their respective programs. Although, it should be noted that the assistant coordinator at CCJD would like more materials and space, and the coordinator at Association House of Chicago would like to participate in the SSS training.

Program compliance refers to how the curriculum was being delivered and the steps that staff members took to ensure its effectiveness. At both Chicago sites, the program coordinators made some changes to the lesson plans in order to meet the needs of their students. Primarily this involved increasing hands-on activity and reducing lectures or discussion. For instance, the program coordinator at Association House of Chicago noted that she only "sometimes" implemented the review and discussion features of the curriculum. Moreover, both program coordinators made use of a variety of teaching strategies during individual sessions and across program implementation. As a result, the staff members were able to keep most of the students highly engaged during SSS. The exception was the primary age group at Association House of Chicago, where students were observed to have moderate levels of engagement. This may have been the result of the program coordinator implementing all segments of the five-step lesson plan for purposes of observation.

Program competence was assessed by examining the staff's comfort level with the SSS program and their value of the SSS program. In both cases, program staff seemed to have high efficacy concerning their ability to implement the curriculum in a competent manner. Especially at CCJD, the staff appeared to have strong ties to the children and an awareness of how to meet their needs while maintaining the principles of the program. In part, this may have contributed to the level of comfort that students expressed at CCJD. It is also interesting

to note, that although the staff at both sites expressed the value of the program, they did provide mixed ratings concerning their perceived importance at their respective organizations. Although the program coordinator at CCJD strongly agreed to its importance, the assistant coordinator disagreed. Furthermore, the program coordinator at Association House of Chicago went from strongly agreeing at pre survey to neutral at post survey concerning the importance of the program to her organization.

As was indicated during the analysis of program fidelity, both organizations took steps to adapt the SSS program for their students. Program staff at both organizations adapted the curriculum with the purpose of making it age appropriate, although for slightly different reasons. For instance, adaptations were made at CCJD to deal with teaching the curriculum to both primary and upper grade students at the same time. In contrast, Association House of Chicago implemented the program in different ways for their two different grade-level groups. Furthermore, staff at both organizations noted that culture was a consideration in their implementation. For one thing, CCJD had to deal with their students being primarily Spanish speaking. Association House of Chicago had to deal with their Latino and African American students' inability to relate to the traditional music included in the curriculum kit. In addition, the program staff at both organizations noted that they had to deal with cultural biases such as adults not wanting to diet.

Lastly, impact of the program was assessed qualitatively for each of the organizations. Interestingly, the program staff at the two programs differed in their opinions about the impact of the program on student participants. Although the program coordinator at Association House of Chicago indicated that the students benefited in terms of attitudes and knowledge, the staff at CCJD focused on gains in knowledge and behavior. Likewise, the students at both organizations talked exclusively about increased knowledge and improved behavior. The staff members who participated in data collection also noted positive impact on their own lives as well as the lives of their families. As with the students, their comments mostly focused on knowledge and behavior. Although, the program coordinator at Association House of Chicago did indicate on her survey that she had improved her attitude about nutrition and physical activity as well. It should also be noted that some of the students at both Association House of Chicago and CCJD reported talking with their parents about the program. Although, as the program coordinator at CCJD pointed out, the parents may not benefit from the program without actually participating, because of a cultural bias about listening to the suggestions of children.

CHAPTER VIII:
DISCUSSION AND CONCLUSION

With the heighten increase of obesity among Latino children, it is imperative to bring awareness of healthy eating habits and physical fitness to this population. The SSS program was designed for this purpose. Being culturally relevant, this program equips Latino families with knowledge and habits to live more balanced, healthier life styles. This study examined the effectiveness of the adaptation of the program to a child-focused afterschool setting.

According to Fletcher, Piha, and Rose's *Guide to Developing Exemplary Practices in Afterschool Programs* (as cited in Center for Collaborative Solutions, 2005), there are six essential practices for implementing a successful health program during afterschool hours. These essential practices echo the ways espoused by Judy Nee (2006), president and CEO of the National After-School Association in preventing obesity:

- Purposeful and intentional curriculum and activities development
- Integration of nutrition and physical activity focusing on the whole child
- Provide meaningful experiences that integrate nutrition and physical activity
- Provide nutritional knowledge and model with healthy snacks
- Be health-centered rather than weight-centered and maintain cultural sensitivity

These elements of success are all integrated into the SSS curriculum, and delivered with reasonable fidelity by the program staff. As a result, although we did not find substantial increases in student knowledge and behaviors from the beginning to the end of the program, the study found that the SSS program had some positive impacts in program students' healthy behaviors relative to the comparison group, and in the knowledge and healthy behaviors of the program staff. Furthermore, the child focused SSS program has reached beyond the students to the participants' parents and families. As suggested by the program staff member at CCJD, the program can be even more successful if steps are taken to collaborate with the day school and communities. For example, working together with parent groups at school to bring in healthier snacks for the Parent Store, working with the cafeteria to prepare healthier lunches at school, and the creation of outreach into the community that increase ways to make healthy foods more affordable in the neighborhoods. More specific recommendations are offered in the following text:

Recommendations

Recommendations are made based on the findings of the qualitative and quantitative analyses:

Training

Although the program was in general delivered effectively and efficiency, some of the program staff, especially the program staff from the two Chicago programs, have requested additional training. Other than receiving training specific to delivering the activities and lessons in the curriculum packet, program staff and students could be further benefited by more general health and nutrition knowledge. As evident in the Chicago programs, even though the program staff did not receive the SSS training, they were efficient in implementing the lessons and engaging the students. The LA's BEST program staff also benefited from the BEST fit training, which helped to broaden their knowledge on physical activities.

Resources

Resources were another area that could be further expanded upon to strengthen the impact on the program for the students, their families and, eventually, the larger community. Although resources were provided, often they were quite limited. Some of the staff even reported using their own money to fund additional materials and equipment for their students. Reason being, many of the staff members were not sure where they could go for additional equipment and materials to enhance the learning environment for their students. For example, some of the staff discussed how they could use more equipment (e.g. blenders) for showing the students a wider variety of healthy snacks to eat at home (e.g. fruit smoothies). Other than material resources, perhaps creating and maintaining an interactive Web site that students, families, and program staff can all participate in, to share knowledge (e.g. is carrot cake a healthy or unhealthy food?), recipes, and ideas; and keep program staff up-to-date on places to obtain materials (e.g. apples are on sale at Ralphs), and ideas for future projects and activities (e.g. community pool is free on Fridays) that they may have for their students.

Cultural Appropriateness

The SSS program is designed to be culturally relevant to Latino families. However, due to the nature and varieties of the different dialects and provinces that Latinos embrace, it is not always relevant to the students attending the program. For example, one of the Chicago programs serves predominantly Puerto Ricans and has to adapt the food presentation and dialects to better fit their audience. In this scenario, cultural appropriateness will have to work hand in hand with nutrition knowledge in order to replace one form of healthy food items with another equivalent. Another consistent comment from the program staff was the appropriateness of Spanish. From the program staff member interviews, the song choices were not contemporary and the students were not able to relate to the music. Instead, older

students disliked the music, and younger students did not understand it. It is recommended that more contemporary and age appropriate choices be available so that students will enjoy and connect with the music as they participate in the activities.

Age-appropriateness

Although the SSS curriculum is designed to have a curriculum set for primary (Kindergarten–Grade 2) versus upper (Grades 3–5) grade levels, age appropriateness is still a matter that needs to be addressed. With regard to instructional and physical activities, younger children need more dynamic activities that keep them engaged, whereas older children need to be more mentally challenged. In addition, younger children also need to participate in physical activities that are less strenuous and simplistic than the physical activities that the older students are a part of (e.g. obstacle courses).

Maintaining Program Fidelity

Program fidelity issues should be further adhered to by implementing a more consistent collaborative effort between the site coordinators and the SSS program staff for enhancing the curriculum and thus increasing the impact it has on students. In addition, a stronger initiative should be placed upon incorporating the feedback of students within the general program, as well as placing greater importance on their opinions about the lesson content and activities in the program. Lastly, such collaboration and feedback from site coordinators from one end, and students on the other, will aid in implementing a plethora of other activities that will enhance the educational experience of SSS students. That is, stronger communication should be structurally enforced among immediate structures (e.g. the site coordinator and their staff, the relationship between day schools and afterschool programs, and so forth) so that a smoother, more effective process transpires in running and maintaining the program for the future.

Student Knowledge and Awareness

Most of the students in SSS had some knowledge background regarding healthy eating, even before attending the program. However, less students, and in particular, the younger students were not able to connect healthy eating with having a healthy body. Meaning, most students did not understand the connection between healthy eating and increased abilities to concentrate in school, or less frequency of illness. Thus, the SSS curriculum should emphasis the relationship between healthy eating and physical activity with overall well-being of the whole body. Because older students were able to grasp key concepts better than younger children, curriculum language that is appropriate for children within a wide age-range should be considered in future planning for the SSS program.

Student Attitudes

There were no differences seen between the SSS participants and the matched control group for attitudes about healthy eating and physical activity. This finding suggests that the SSS curriculum should better assist students in identifying healthier foods to eat so that they are able to make more effective choices in their diet.

Improvement in Unhealthy Student Behavior

A decrease in unhealthy behaviors (e.g., watching television, and playing video games) was found for SSS participants, more specifically for older program students. We can assume that with the decrease in unhealthy activities, there was an increase in healthier activities due to the requirement of more physical movement. Although the SSS curriculum does incorporate a physical activity in each daily lesson, students reported wanting to have a larger array of physical activities to participate within the program. Given more options, children can be physically active and find healthier ways to spend their recreational time.

Healthy Student Behaviors

Overall, our findings revealed that students did report an increase in their behaviors towards healthy eating and physical activity, more specifically for younger program students. Most students reported eating more fruits and vegetables and participating more in physical activities. Program staff affirmed that the SSS program positively impacted the behaviors of students. A consistent method of gauging health behavior improvements would allow staff to better access claims regarding student impact in the program.

Impact of Program on Staff

Staff also reported that the SSS program impacted them by their exhibiting of more positive healthy behaviors as they instructed their students. This aided in them becoming more positive role model influences for their students, and in turn, reinforcing students to display healthier life style behaviors.

Reach of the Program

Most students in the focus group interview reported sharing information they learned in the SSS program with their parents and families. Older students were more likely to share this information than younger students. These findings indicate that a child-focused program can cause younger children to become important advocates for healthy living. To strengthen the level of communication between students and families about the SSS program, the curriculum could include assignments that require students to go home and share program information with their families. These assignments can be simple exchanges of information.

Case in point, an assignment can have students ask family members why it is important to eat healthy foods and to be physically active. Assignments could also be more creative and hands-on, requiring students to do things like, for example, conducting a hands-on nutritional activity at home with the assistance of a family member. Lastly, program staff claimed that non-student SSS participants were interested in the SSS program, especially when information was shared by program students. This finding further validates that child participants can impact the desire for others to learn about healthy living and well-being.

So, in answering the main evaluation questions on process and what adaptive strategies have "worked," the SSS program has adequately met issues on compliance and competence of staff members. Context issues (e.g., training and resources), however, need to be further dealt with for promoting a more effective community environment that reinforces life style changes for its students. In addition, staff members need to be more extensively trained in developing a curriculum that can better connect younger children to healthy ideas about body image, weight, and nutrition. Students can only maintain a healthy lifestyle if such norms are positively upheld by their families, and by their larger surrounding communities.

Conclusion

Current literature asserts that afterschool programs intervene and successfully educate youth on health, nutrition, and physical fitness (Ritchie et al., 2001). Although the child is the main person of impact from the program, extra community support is required to uphold the ideas taught in the SSS program, especially for younger children. Parents are strongly called to be more involved in spreading the word as well as implementing the healthy practices conducted within the SSS program for their child. Essentially, a more holistic approach is needed for forming a more cohesive unit, from site coordinators to the SSS program staff, from SSS program staff to parents, and from parents to the larger community for educating and bringing successful, healthy lifestyle changes that will be adapted and maintained. A more top-down perspective will aid in keeping students accountable on all ends. This is especially important because younger students are not mere agents for endorsing healthy habits and behaviors by themselves; they exist within larger contexts which influence the behaviors they choose and adhere to. That is, students will be able to retain the knowledge and behaviors they have been taught as they effectively interact within a larger environment bigger than themselves.

Being exploratory, this study signifies the importance of having a health education program with a child-centered focus. In spite of this, there were some limitations to this study. First, the instruments used to measure the impact of the SSS program on students and

staff could have affected the outcome data. Initially, our survey data was primarily designed for children in Grade 3 and higher, not necessarily for Kindergarten and Grade 1. Although this was the case, the sample population changed to include Kindergarten and Grade 1. Consequently, many of the primary-aged students had a harder time answering the questions on the survey questionnaire, and results were analyzed according to what was turned in by students.

For example, this study found no significant differences between program and control groups on student attitudes toward healthy eating. The questions on the student survey that were meant to gauge student attitudes were very specific, relating to their opinions of healthy and unhealthy activities. This assessment may have been too specific, especially for the younger children who participated in the study.

Another example of the limitations of instruments includes the contradiction found between the quantitative analysis that showed no significant differences in younger students' healthy behaviors and qualitative data that found the opposite—younger children did report changing specific habits and behaviors to more healthy ones. Again, the survey instruments may not have been able to capture these positive changes reported in the focus group and staff interview data. Survey instruments were originally designed for older students, in Grades 3–5. However, students as young as kindergarten were included in the sample. Thus, more age appropriate surveys could have resolved contradictions in data results. The validity of the students responses are of concern in how the data was analyzed. Nevertheless, the results showed that, generally, all students were impacted by the SSS program. To add, the eating habits and behaviors of SSS students improved more so than the matched sample group. With further implementation of health education programs to more than LA's Best sites, the SSS program can be employed for Latino children and their families at a multi-site level in the continued promotion of healthy behaviors and lifestyles.

Hopper and colleagues (1996) found that parental involvement helps to increase student awareness and understanding of nutrition and fitness. In their study, health-related information was sent home to parents while students were provided with health-related information. And as a result, parents' and students' knowledge on health-related topics increased. Thus, recruiting parents is extremely important for health-related programs.

References

American Academy of Pediatrics. (2004, March). *Statement from the American Academy of Pediatrics for the senate subcommittee on competition, foreign commerce and infrastructure on the rise of childhood obesity*. Washington, DC: American Academy of Pediatrics.

American Public Health Association. (2003). *The obesity epidemic in U.S. minority communities* (Issue Brief Volume 1, Number 2). Washington, DC: Author.

Beckett, M., Hawken, A., & Jacknowitz, A. (2001). *Accountability for after-school care: Devising standards for measuring adherence to them*. Santa Monica, CA: RAND Corporation.

Birmingham, J., Pechman, E. M., Russell, C., & Mielke, M. (2005). *Shared features of high-performing after-school programs: a follow-up to the TASC evaluation.* Washington, DC: Policy Studies Associates, Inc.

California Nutrition Network. (2005, September). *Developing exemplary practices in nutrition and physical activity in afterschool programs* (Draft Paper). Sacramento, CA: Center for Collaborative Solutions.

CBS News & Associated Press. (2003). *Shocking diabetes prediction*. CBS Broadcasting Inc. Retrieved October 6, 2006, from http://www.cbsnews.com/stories/2003/06/14/eveningnews/main558728.shtml

Center for Collaborative Solutions. (2005, September). *Developing exemplary practices in nutrition and physical activity in afterschool programs* (Draft Paper). Sacramento, CA: Author.

Center for Prevention Research and Development. (2005). *Salsa, Sabor y Salud program: Annual evaluation report*. Chicago: University of Illinois.

Centro Communitario Juan Diego. (n. d.). *South Chicago history*. Chicago: Author. Retrieved April 11, 2008, from http://www.ccjuandiego.org/aboutus.htm

Cherin, A. (2008). The effects of food marketing on children's preferences: Testing and moderating roles of age and gender. *The ANNALS of the American Academy of Political and Social Science, 615*(1), 101–118.

Flores, G., Fuentes-Afflick, E., Barbot, O., Carter-Pokras, O., Claudio, L., Lara, M., et al. (2002). The health of Latino children: Urgent priorities, unanswered questions, and a research agenda. *The Journal of the American Medical Association, 288*(1), 82–90.

Giles-Corti, B. & Donovan, R. J. (2002). Socioeconomic status differences in recreational physical activity levels and real and perceived access to a supportive physical environment. *Preventive Medicine, 35*(6), 601–611.

Glaser, B. & Strauss, A. (1967). *The discovery of grounded theory: Strategies for qualitative research*. Chicago: Aldine.

Hannafin, M. J. (1996). Emerging technologies, ISD, and learning environments: Critical perspectives. In D.P. Ely & T. Plomp (Eds.), *Classic writings on instructional technology: Vol. 2.* (pp. 95–112). Westport, CT: Libraries Unlimited.

Hass, J. S., Lee, L. B., Kaplan, C. P., Sonneborn, D., Phillips, K. A., & Liang, S. (2003). The association of race, socioeconomic status, and health insurance status with the prevalence of overweight among children and adolescents. *American Journal of Public Health, 93*(12), 2105–2110.

Hedley, A. A., Ogden, C. L., Johnson, C. L., Carroll, M. D., Curtin, L. R., & Flegas, K. M. (2004). Prevalence of overweight and obesity among U.S. children, adolescents, and adults, 1999–2002. *The Journal of the American Medical Association, 291*(23), 2847–2850.

Hernandez, E. A. (2007). A validation study on a Latino childhood overweight program. *Dissertation abstracts international: Section B: The Science and Engineering, 68*(7), 4826.

Hopper, C. A., Munoz, K. D., Gruber, M. B., MacConnie, S., Schonfeldt, B., & Shunk, T. (1996). A school-based cardiovascular exercise and nutrition program with parent participation: An evaluation study. *Children's Health Care, 25*(3), 221–235.

Huang, D. (2001). An after-school evaluation system for middle and high school programs. *NAASP Bulletin, 85*(626), 45–61.

Jordan, A. B. & Robinson, T. N. (2008). Children, television viewing, and weight status: Summary and recommendations from an expert panel meeting. *The ANNALS of the American Academy of Political and Social Science, 615,* 119-132.

Juarbe, T. C. (1998). Risk factors for cardiovascular disease in Latina women. *Progress in Cardiovascular Nursing, 13*(2), 17–27.

Latessa, E. J. (2003). *The principles of effective intervention: Results and lessons learned from Ohio*. Cincinnati, OH: Center for criminal Justice research, University of Cincinnati.

Miles, M. B. & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook* (2nd ed.). Thousand Oaks, CA: Sage Publications.

Morris, J. L., Koumjian, K. L., Briggs M., & Zidenberg-Cherr, S. (2002). Nutrition to grow on: A garden-enhanced nutrition education curriculum for upper-elementary schoolchildren. *Journal of Nutrition Education and Behavior, 34*(3), 175–176.

Muhr, T. (1997). Atlas.ti [Computer software]. Berlin, Germany: Scientific Software Development GmbH.

National Cancer Institute. (2004). *Obesity and cancer: Questions and answers*. Bethesda, MD: National Cancer Institute. Retrieved April 15, 2008, from http://www.cancer.gov/cancertopics/factsheet/Risk/obesity

Nee, J. (2006). *Active kids after school: The role of after-school in obesity prevention*. Retrieved October 13, 2006, from http://www.naaweb.org/pdf/ACTIVE_KIDS_AFTER_SCHOOLfinal.ppt

Ritchie, L., Ivey, S., Masch, M., Woodward-Lopez, G., Ikeda, J., & Crawford, P. (2001). *Pediatric Overweight: A review of the literature.* Berkeley, CA: The Center for Weight and Health, College of Natural Resources, University of California, Berkeley.

Rose, D. & Bodor, J. N. (2006). Household food insecurity and overweight status in young school children: Results from the early childhood longitudinal study. *Pediatrics, 117,* 464-473.

Rosenbloom, A. L., Joe, J. R., Young, R. S., & Winter, W. E. (1999). Emerging epidemic of type 2 diabetes in youth. *Diabetes Care, 22*(2), 345–354.

State of California, Department of Finance. (2007, July). *Population projections for California and its counties 2000-2050, by age, gender and race/*ethnicity. Sacramento, CA: Author. Retrieved April 21, 2008, from http://www.dof.ca.gov/html/ DEMOGRAP/ReportsPapers/Projections/P3/P3.php

Strang Cancer Prevention Center. (2004). *Healthy children healthy futures*. Retrieved October 16, 2006, from http://www.healthychildrenhealthyfutures.org

Strauss, A. & Corbin, J. (1990). *Basics of qualitative research: Grounded theory procedures and techniques*. Newbury Park, CA: Sage Publications.

Teufel, N. I., Perry, C. L., Story, M., Flint-Wagner, H. G., Levin, S., Clay, et al. (1999). Pathways family intervention for third-grade American Indian children. *The American Journal of Clinical Nutrition, 69*(supl), 803S–809S.

Thompson, N. J., & McClintock, H. O. (2000). *Demonstrating your program's worth* (Rev. ed.). Atlanta, GA: National Center for Injury Prevention and Control.

U.S. Census Bureau. (2002). *Race and Hispanic or Latino origin by age and sex for the United States: 2000*. Washington, D.C.: Author. Retrieved April 21, 2008, from http://www.census.gov/population/cen2000/phc-t08/phc-t-08.pdf

Van Belle, G., & Millard, S. P. (1998). *STRUTS: Statistical rules of thumb.* Seattle, WA: The Northwest Research Center for Statistics and the Environment. Retrieved April 11, 2008, from http://www.nrcse.washington.edu/NRCSE/struts/chapter2.pdf

Van Voorhis, C. R., & Morgan, B. L. (2007). Understanding power and rules of thumb for determining sample sizes. *Tutorials in Quantitative Methods for Psychology, 3,* 43–50.

Appendix A:
The LA's BEST Program

Los Angeles Better Educated Students for Tomorrow (LA's BEST) was first implemented in the fall of 1988. The program is under the auspices of the Mayor of Los Angeles, the Superintendent of the Los Angeles Unified School District (LAUSD), a board of directors, and an advisory board consisting of leaders from business, labor, government, education, and the community.

LA's BEST seeks to provide a safe haven for at-risk students in neighborhoods where gang violence, drugs, and other types of anti-social behaviors are common. The program is housed at selected LAUSD elementary schools and is designed for students in Kindergarten through Grades 5/6. The LA's BEST sites are chosen based on certain criteria, such as low academic performance and their location in low-income, high-crime neighborhoods. For optimal program success and to ensure buy-in from the principals and the school staff, the school principals have to write an official letter of request for the program to be placed in their school site.

LA's BEST is a free program open to all students in the selected sites on a first come first serve basis. Students who sign up for the program are expected to attend 5 days a week in order to reap the full benefits of the program offerings. Currently, LA's BEST serves a student population of approximately 30,000 with about 80% Hispanic and about 12% Black elementary students. English Learners comprise at least half of the student population for most sites. Of this population, the majority's primary language is Spanish; whereas the other percentage of the English Learner population is composed of those whose first language is of Asian/Pacific origin.

Parents often mention homework help and proper supervision as the primary incentives for enrolling their children to the program. Teachers may also recommend students for LA's BEST due to behavioral or academic needs. Students enjoy the program due to its supportive staff and positive environment conducive for academic achievement and engagement of extracurricular activities.

Appendix B:
Child Participant Survey Form A

Directions:

➔ Please circle only one answer for each of the questions on this page.

1. **How old are you?**

   A) Less than 7 B) 7 C) 8 D) 9 E) 10 F) 11 G) More than 11

2. **What grade are you in?**

   A) 3rd B) 4th C) 5th D) Other _____

3. **Are you a boy or a girl?**

   A) Girl B) Boy

4. **Where is your mom/female guardian from?**

   A) USA B) Mexico C) El Salvador D) Ecuador E) Honduras F) Other ____

5. **Where is your dad/male guardian from?**

   A) USA B) Mexico C) El Salvador D) Ecuador E) Honduras F) Other ____

6. **What language(s) do you know how to speak?**

   A) English Only B) English and Spanish C) Spanish only D) Other _____

7. **What language(s) do your parents speak at home?**

   A) English Only B) English and Spanish C) Spanish only D) Other _____

Directions:

➔ Put a check mark (✔) for each answer that you agree with.

➔ You can <u>check more than one</u> answer for each question on this page.

8. **Which of these foods and drinks are healthy snacks? (You can check more than one)**
   - __ A handful of grapes
   - __ A bag of chips
   - __ An order of french fries
   - __ A piece of carrot cake
   - __ An apple
   - __ A glass of orange soda
   - __ A glass of milk

9. **Why is being active good for kids? (You can check more than one)**
   - __ It helps keep you from getting sick
   - __ It helps you pay attention in school
   - __ It gives you more energy
   - __ It helps build healthy bones and muscles to keep you strong
   - __ It helps me to be a healthy weight

10. **It helps me to be healthy when I eat or drink... (You can check more than one)**
    - __ fruits and vegetables.
    - __ the same food every day.
    - __ different foods from all the food groups.
    - __ 6 glasses or more of water a day.
    - __ a lot so that my stomach feels extra full.

11. **It helps me stay healthy when I... (You can check more than one)**
    - __ jump rope.
    - __ play video games.
    - __ play sports.
    - __ watch TV.
    - __ dance.
    - __ play board games.
    - __ ride a bicycle.

Directions:

➔ Find the word that best describes what you do and circle it.

➔ Please <u>circle only one</u> answer for each question on this page.

12.	I talk to my parents about healthy eating habits.	Never	Sometimes	A lot	Every day
13.	I talk to other family members (example: sisters, brothers, aunts, grandparents) about healthy eating habits.	Never	Sometimes	A lot	Every day
14.	I talk to my parents about how it is fun and good for me to be active.	Never	Sometimes	A lot	Every day
15.	I talk to other family members (example: sisters, brothers, aunts, grandparents) about how it is fun and good for me to be active.	Never	Sometimes	A lot	Every day

Directions:

➔ Find the word that best describes how much you agree with each sentence and circle it.

➔ Please <u>circle only one</u> answer for each question on this page.

16.	I enjoyed attending the *Salsa* program.	Disagree	Agree	Not Sure
17.	I learned a lot from the *Salsa* program.	Disagree	Agree	Not Sure
18.	The activities we did in the *Salsa* program were boring.	Disagree	Agree	Not Sure
19.	The program staff spoke to us in other languages besides English.	Disagree	Agree	Not Sure
20.	The program staff let us speak other languages besides English.	Disagree	Agree	Not Sure
21.	I was comfortable talking to my program teacher about nutrition and being active.	Disagree	Agree	Not Sure

Appendix C:
Child Participant Survey: Form B

Directions:

➔ Choose the word that best describes what you think and circle it.

➔ Please circle only one answer for each question.

1. How often during a week do you eat…

a.	broccoli	Never	Once	More than once	Every day
b.	apples	Never	Once	More than once	Every day
c.	carrots	Never	Once	More than once	Every day
d.	grapes	Never	Once	More than once	Every day
e.	corn	Never	Once	More than once	Every day
f.	oranges	Never	Once	More than once	Every day

g.	corn tortillas	Never	Once	More than once	Every day
h.	rice	Never	Once	More than once	Every day
i.	cereal	Never	Once	More than once	Every day
j.	oatmeal	Never	Once	More than once	Every day
k.	bread	Never	Once	More than once	Every day
l.	spaghetti	Never	Once	More than once	Every day

m.	ice cream	Never	Once	More than once	Every day
n.	flan	Never	Once	More than once	Every day
o.	cookies	Never	Once	More than once	Every day
p.	french fries	Never	Once	More than once	Every day
q.	potato chips	Never	Once	More than once	Every day
r.	pan dulce/sweetbread	Never	Once	More than once	Every day

2. How often during a week do you eat…

a.	chicken	Never	Once	More than once	Every day
b.	nuts	Never	Once	More than once	Every day
c.	ham	Never	Once	More than once	Every day
d.	beans	Never	Once	More than once	Every day
e.	turkey	Never	Once	More than once	Every day
f.	peanut butter	Never	Once	More than once	Every day

g.	cheese	Never	Once	More than once	Every day
h.	yogurt	Never	Once	More than once	Every day
i.	enchiladas	Never	Once	More than once	Every day
j.	pizza	Never	Once	More than once	Every day
k.	tacos	Never	Once	More than once	Every day
l.	hamburgers	Never	Once	More than once	Every day

m.	soda	Never	Once	More than once	Every day
n.	juice	Never	Once	More than once	Every day
o.	water	Never	Once	More than once	Every day
p.	milk	Never	Once	More than once	Every day
q.	lemonade	Never	Once	More than once	Every day
r.	chocolate milk	Never	Once	More than once	Every day

3. How often during a week do you...

a.	watch TV	Never	Once	More than once	Every day
b.	jump rope	Never	Once	More than once	Every day
c.	play sports	Never	Once	More than once	Every day
d.	dance	Never	Once	More than once	Every day
e.	play video games	Never	Once	More than once	Every day
f.	ride a bicycle	Never	Once	More than once	Every day

Directions:

➔ Choose the answer that best describes what you think and circle it.

➔ Please <u>circle only one</u> letter for each question.

4. **You are at a BBQ with your family. Everyone has brought a different type of food to share. You decide to serve yourself because you are hungry. What do you serve yourself?**
   A) Only fruits and vegetables
   B) Only meat and dessert
   C) Only cake and ice cream
   D) A large amount of everything
   E) A small amount of everything

5. **It is time to go to the store to buy groceries. Your parent/guardian has asked you to make a list of the food to buy. Which list below would most closely match your list?**
   A) Fruits, vegetables and meat
   B) Fruits, vegetables, meat, cheese and dessert
   C) Fruits, vegetables, meat, cheese, milk and dessert
   D) Fruits, vegetables, meat, cheese, milk, bread and dessert
   E) Junk food

6. **Your parent/guardian is at the grocery store and you have noticed that they have not included fruits, vegetables, dairy, cake or ice cream in the cart. What do you do?**
   A) Don't say anything
   B) Remind my parent/guardian that we should buy fruits
   C) Remind my parent/guardian that we should buy fruits and vegetables
   D) Remind my parent/guardian that we should buy fruits, vegetables and dairy
   E) Remind my parent/guardian that we should buy cake and ice cream

Directions:

➔ Please put a check mark (✔) for each answer that you agree with.

➔ You can check more than one answer for each question.

7. **Eating healthy foods makes me feel _____.**
   ___ terrible
   ___ good
   ___ sad
   ___ tired

8. **Eating junk food makes me feel _____.**
   ___ terrible
   ___ good
   ___ sad
   ___ tired

9. **It is _____ for me to select healthy choices when I eat.**
   ___ hard
   ___ boring
   ___ easy
   ___ fun

10. **Healthy food tastes _____.**
    ___ gross
    ___ better than junk food
    ___ terrible
    ___ good

11. **Junk food tastes _____.**
    ___ gross
    ___ better than healthy food
    ___ terrible
    ___ good

12. **Being active is _____.**
    ___ hard
    ___ boring
    ___ easy
    ___ fun

13. **Being active makes me feel _____.**
    ___ tired
    ___ energized
    ___ terrible
    ___ good

Appendix D:
Program Site Staff Survey

GENERAL BACKGROUND INFORMATION

Directions: Please check all that apply.

1. Please indicate education level(s):
   - ❑ Currently in high school
   - ❑ High school graduate/GED
   - ❑ Associate's degree
   - ❑ Bachelor's degree
   - ❑ Master's degree
   - ❑ Doctoral/Professional degree
   - ❑ Credentials _____
   - ❑ Other _____

2. Please indicate all languages spoken fluently:
   - ❑ Spanish
   - ❑ English
   - ❑ Other: _____

3. Please indicate your racial/ethnic background:
   - ❑ White
   - ❑ Asian
   - ❑ Black / African-American
   - ❑ Latina/o. **If yes,** specify ethnic group: _____
   - ❑ Native American
   - ❑ Other, please specify: _____

4. Please indicate your role in the community organization/ *Salsa* program:
   - ❑ Site / Program Coordinator
   - ❑ Program Worker
   - ❑ Instructor / Coach
   - ❑ Playground Worker
   - ❑ Other _____

STAFF TRAINING

Directions: Please circle one response per question.

5. How long have you been:

	Less than 1 month	A few months	1 year	1-3 years	More than 4 years	Not applicable
a. Working at your current organization?	1	2	3	4	5	N/A
b. Working in community organizations in general?	1	2	3	4	5	N/A
c. Involved in health instruction at your current organization?	1	2	3	4	5	N/A
d. Involved in health instruction in general?	1	2	3	4	5	N/A
e. Working with the *Salsa* program?	1	2	3	4	5	N/A

6. How often have you:

	Never	Once	2-3 times	4 times or more	Not applicable
a. Participated in training for health instruction, other than *Salsa*, through your community organization?	1	2	3	4	N/A
b. Participated in training for health instruction, other than *Salsa*, through other organizations?	1	2	3	4	N/A

PROGRAM ENVIRONMENT

Directions: Please circle one response per question.

7. Please rate the extent to which you agree or disagree with the following statements:

	Strongly disagree		Neutral		Strongly agree	Not applicable
a. *Salsa* is an important part of our community organization.	1	2	3	4	5	N/A
b. *Salsa* is included in our regular schedule.	1	2	3	4	5	N/A
c. The staff adjusts the *Salsa* program based on child progress.	1	2	3	4	5	N/A
d. The staff receives adequate support and resources for *Salsa* instruction.	1	2	3	4	5	N/A
e. I have a positive working relationship with the children in the *Salsa* program.	1	2	3	4	5	N/A
f. Health instruction (other than *Salsa*) is an important part of our community organization.	1	2	3	4	5	N/A
g. Health instruction (other than *Salsa*) is included in our regular schedule.	1	2	3	4	5	N/A

8. If applicable, what other types of health instruction and activities are available at your program?
   - ❑ Nutrition classes
   - ❑ Physical Education (P.E.)
   - ❑ Sports
   - ❑ Dance
   - ❑ Other: _____

ACTIVITY & LESSON CONTENT

Directions: Please circle one response per question.

9. Is the following content covered in the *Salsa* program at this site?

	No	Yes	Not Sure
a. Eating a variety of foods from each group every day.	1	2	3
b. Eat foods in moderation.	1	2	3
c. Be active everyday.	1	2	3
d. Developing daily healthy eating and life habits.	1	2	3

10. Specify which teaching strategies you use: (Please check all that apply):

- ❑ Lecture
- ❑ Class Discussion
- ❑ Worksheets
- ❑ Homework
- ❑ Hands-on activity
- ❑ Grouping strategies
- ❑ Cross-content integration (i.e. combine other subject content, such as science, with health.)
- ❑ "Real-world" connections (i.e. grocery shopping "activities")
- ❑ Teacher modeling
- ❑ Other(s) _____

PROGRAM IMPACT

Directions: Please circle one response per question.

11. Based upon your experience with *Salsa,* rate whether the program has had a **positive impact on**:

	Disagree	Agree	Not Sure
a. Children's attitudes on nutrition and physical activity.	1	2	3
b. Children's knowledge about nutrition and physical activity.	1	2	3
c. Children's behaviors related to health and physical activity.	1	2	3
e. Your attitude on nutrition and physical activity.	1	2	3
f. Your knowledge about nutrition and physical activity.	1	2	3
g. Your behaviors related to health and physical activity.	1	2	3
h. Others (i.e. children's families, other staff, school and community members) nutrition attitudes, knowledge or behaviors.	1	2	3

12. Overall *Salsa* program satisfaction:

	Disagree	Agree	Not Sure
a. Children are generally satisfied with the *Salsa* program.	1	2	3
b. I am satisfied with the *Salsa* program.	1	2	3
c. I have personally benefited from the *Salsa* program.	1	2	3

STUDENT ENGAGEMENT

Directions: Please circle one response per question.

13. How often do children exhibit the following on-task behaviors during the *Salsa* program?

	Never	Rarely	Sometimes	Frequently	Regularly	Not Applicable
a. Listening/Watching	1	2	3	4	5	N/A
b. Writing	1	2	3	4	5	N/A
c. Speaking	1	2	3	4	5	N/A
d. Reading	1	2	3	4	5	N/A

14. How often do children exhibit the following off-task behaviors during the *Salsa* program?

	Never	Rarely	Sometimes	Frequently	Regularly	Not Applicable
a. Passive	1	2	3	4	5	N/A
b. Doing other work	1	2	3	4	5	N/A
c. Talking off topic	1	2	3	4	5	N/A
d. Disturbing others	1	2	3	4	5	N/A
e. Playing	1	2	3	4	5	N/A

15. Rate the level of child engagement during the following sections of the *Salsa* program?

Lesson Component	Never	Rarely	Sometimes	Frequently	Regularly	Not Applicable
a. Introduction	1	2	3	4	5	N/A
b. Review	1	2	3	4	5	N/A
c. Nutrition activities	1	2	3	4	5	N/A
d. Physical activities	1	2	3	4	5	N/A
e. Discussion	1	2	3	4	5	N/A

16. Additional Comments:

Appendix E:

Comparison Site Staff Survey

GENERAL BACKGROUND INFORMATION

Directions: Please check all that apply.

1. Please indicate education level(s):
   - ❑ Currently in high school
   - ❑ High school graduate/GED
   - ❑ Associate's degree
   - ❑ Bachelor's degree
   - ❑ Master's degree
   - ❑ Doctoral/Professional degree
   - ❑ Credentials _____
   - ❑ Other _____

2. Please indicate all languages spoken fluently:
   - ❑ Spanish
   - ❑ English
   - ❑ Other: _____

3. Please indicate your racial/ethnic background:
   - ❑ White
   - ❑ Asian
   - ❑ Black / African-American
   - ❑ Latina/o. **If yes,** specify ethnic group: _____
   - ❑ Native American
   - ❑ Other, please specify: _____

4. Please indicate your role in the community organization/ *Salsa* program:
   - ❑ Site / Program Coordinator
   - ❑ Program Worker
   - ❑ Instructor / Coach
   - ❑ Playground Worker
   - ❑ Other _____

STAFF TRAINING

Directions: Please circle one response per question.

5. How long have you been:

	Less than 1 month	A few months	1 year	1-3 years	More than 4 years	Not applicable
a. Working at your current organization?	1	2	3	4	5	N/A
b. Working in community organizations in general?	1	2	3	4	5	N/A
c. Involved in health instruction at your current organization?	1	2	3	4	5	N/A
d. Involved in health instruction in general?	1	2	3	4	5	N/A

6. How often have you:

	Never	Once	2-3 times	4 times or more	Not applicable
a. Participated in training for health instruction through your community organization?	1	2	3	4	N/A
b. Participated in training for health instruction through other organizations?	1	2	3	4	N/A

PROGRAM ENVIRONMENT

Directions: Please circle one response per question.

7. Please rate the extent to which you agree or disagree with the following statements:

	Strongly disagree		Neutral		Strongly agree	Not applicable
a. Health instruction is an important part of our community organization.	1	2	3	4	5	N/A
b. Health instruction is included in our regular schedule.	1	2	3	4	5	N/A

8. If applicable, what types of health instruction and activities are available at your program?

- ❑ Nutrition classes
- ❑ Physical Education (P.E.)
- ❑ Sports
- ❑ Dance
- ❑ Other: _____

IF YOUR SITE DOES NOT HAVE HEALTH INSTRUCTION AND YOU DO NOT HAVE DIRECT HEALTH INSTRUCTION EXPERIENCE, YOU MAY STOP HERE. OTHERWISE, PLEASE CONTINUE.

ACTIVITY & LESSON CONTENT

Directions: Please circle one response per question.

9. Is the following content covered in the *health* program at this site?

	No	Yes	Not Sure
a. Eating a variety of foods from each group every day.	**1**	**2**	**3**
b. Eat foods in moderation.	**1**	**2**	**3**
c. Be active everyday.	**1**	**2**	**3**
d. Developing daily healthy eating and life habits.	**1**	**2**	**3**

10. Specify which *health* teaching strategies you use: (Please check all that apply):

- ❑ Lecture
- ❑ Class Discussion
- ❑ Worksheets
- ❑ Homework
- ❑ Hands-on activity
- ❑ Grouping strategies
- ❑ Cross-content integration (i.e. combine other subject content, such as science, with health.)
- ❑ "Real-world" connections (i.e. grocery shopping "activities")
- ❑ Teacher modeling
- ❑ Other(s) _____

PROGRAM IMPACT

Directions: Please circle one response per question.

11. Based on your health instruction experience, rate whether the program has had a **positive impact on**:

	Disagree	Agree	Not Sure
a. Children's attitudes on nutrition and physical activity.	1	2	3
b. Children's knowledge about nutrition and physical activity.	1	2	3
c. Children's behaviors related to nutrition and physical activity.	1	2	3
e. Your attitude on nutrition and physical activity.	1	2	3
f. Your knowledge about nutrition and physical activity.	1	2	3
g. Your behaviors related to nutrition and physical activity.	1	2	3
h. Others (i.e. children's families, other staff, school and community members) health attitudes, knowledge or behaviors.	1	2	3

12. Overall *health* program satisfaction:

a. Children are generally satisfied with the *health* program.	1	2	3
b. I am satisfied with the *health* program.	1	2	3
c. I have personally benefited from the *health* program.	1	2	3

STUDENT ENGAGEMENT

Directions: Please circle one response per question.

13. How often do children exhibit the following on-task behaviors during the *health* program?

	Never	Rarely	Sometimes	Frequently	Regularly	Not applicable
a.Listening/Watching	1	2	3	4	5	N/A
b. Writing	1	2	3	4	5	N/A
c. Speaking	1	2	3	4	5	N/A
d. Reading	1	2	3	4	5	N/A

14. How often do children exhibit the following off-task behaviors during the *health* program?

	Never	Rarely	Sometimes	Frequently	Regularly	Not applicable
a. Passive	1	2	3	4	5	N/A
b. Doing other work	1	2	3	4	5	N/A
c. Talking off topic	1	2	3	4	5	N/A
d. Disturbing others	1	2	3	4	5	N/A
e. Playing	1	2	3	4	5	N/A

15. Rate the level of child engagement during the following components of the *health* program?

Lesson Component	Never	Rarely	Sometimes	Frequently	Regularly	Not applicable
a. Nutrition activities	1	2	3	4	5	N/A
b. Physical activities	1	2	3	4	5	N/A

16. Additional Comments:

Appendix F:
Child Focus Group Protocol

Site Name _____ **Start Time _____**

Site ID Code _____ **End Time _____**

Date _____

INTRODUCTORY SCRIPT

Read verbatim to interviewees:

Good afternoon. My coworkers and I work at UCLA. We came today because we want to talk to you and some of your classmates about the *Salsa, Sabor y Salud* program. We want to know how all of you feel about *Salsa, Sabor y Salud.*

Each of your parents already signed a permission form saying that it is okay for you to talk with us today. Remember, even though your parents said that you could participate, you do not have to participate unless you want to. No one will be upset if you do not want to participate or if you change your mind later and want to stop. However, your opinions are very important to us. If you participate, this will help us find out how we can make the *Salsa, Sabor y Salud* program better. This will also let us know if the program helps you learn more about the importance of healthy eating and physical activity. This will take about one hour.

I will be asking you some questions. Each of you will be given a chance to answer. What you say will be tape recorded so that we can listen to it later. Only the researchers at UCLA will listen to the tapes and write a report. You will not get in trouble for what you say. We want you to be honest and answer the questions for the way YOU feel. I will not use any of your names today or in our report. In fact, I would like all of you to select a code name from these options.

Place pre-printed tents on the table.

If two or more of you want the same name, please let me know. I have some blank cards and we will refer to you as, for example, Eagle One, Eagle Two, and so forth. Any questions? Okay, please make your selection.

Cheetah, Dolphin, Eagle, Frog, Hawk, Jaguar, Koala Bear, Leopard, Lion, Lizard, Panda Bear, Polar Bear, Reindeer, Snake, Tiger, Turtle, Horse

Okay, now that you have all selected a code name, I have a few more things that I want discuss before I go over the questions with you.

Because I will be using a tape recorder, I have a few rules that I need all of you to follow:

1. First, it is important that you each take turns talking. Otherwise, we will not be able to hear what you have to say.
2. Please mention your code name before you speak.
3. If two or more of you have something to say, I will call on each of you until all of you have had a turn.

Finally, if there are any questions that you do not want to answer in front of your classmates, just let me know, and you can tell me at the end.

Does anyone have any questions? Okay, if you are ready, we will begin.

GENERAL BACKGROUND INFORMATION

1. First, let us introduce ourselves. As I go around to each of you, I want you to tell me your a) first name and b) your grade.

2. What types of activities related to healthy eating and physical exercise have you attended outside of the *Salsa* program?
   Probes: For example, soccer club, YMCA, the Boys and Girls Club
   Did you attend before, during, or after the program?

ACTIVITY AND LESSON CONTENT

3. What types of activities have you done in the *Salsa* program?
   Probes: For example, nutrition, physical activity, individual activities, group activities, special events, guest speakers

4. Where did these activities take place?
   Probes: Indoors – classroom, library, auditorium, cafeteria
   Outdoors – playground, picnic tables
   Off-site – field trips

5. Some of the activities in the *Salsa* program are supposed to the things you do when you get together as a family.
   a. Can you give me some examples of how the program is similar to what you do with your family?
   b. Do you have any suggestions for how to make the program more like your family events?

PROGRAM ENVIRONMENT & SATISFACTION

6. What do you like best about the *Salsa* program?

7. If you could change one thing about the *Salsa* program, what would it be?

8. Why are you participating in the *Salsa* program?

9. Think back to the activities that you have done so far in the *Salsa* program…
   a. Did the staff do anything to make you feel comfortable talking about your health, eating habits, or physical activity?
   b. Can you give me some examples of how they made you feel comfortable (uncomfortable)?

EVIDENCE OF IMPACT

10. What have you learned in the program?
    Probes: …about the food groups
    …about portion sizes
    …about being physically active
    …about how to change your eating habits and physical activity

11. What changes have you made in your daily habits as a result of the program?
    Probes: …eating habits
    …physical activity
    …how much time you spend watching TV or playing video games

12. What information from the program have you shared with your family or friends?
    a. How did you share this information?
    b. How has this affected your family or friends?

CONCLUSION

13. Is there anything else we have not talked about, but that you would like to share about the *Salsa* program?

Appendix G:
Staff Interview Protocol

Site Name _____ **Start Time _____**

Site ID Code _____ **End Time _____**

Date _____

INTRODUCTORY SCRIPT

Read verbatim to interviewees:

Thank you so much for talking with us today. Your input is especially important for us to understand the *Salsa, Sabor y Salud* program at your site. Please be aware that your answers will be kept confidential and will not be associated with either your name or your site in our report. Would you mind if we tape our conversation?

GENERAL BACKGROUND INFORMATION

1. What is your current job position and what are your major responsibilities in the community program?
   Probe: What are your major responsibilities in the *Salsa* program?

2. Please describe your work experience, including your specific role and years of experience, within:
   a. Afterschool Programs
   b. Community Organizations
   c. Health Education
   d. Other educational settings

3. Describe any health education training, other than for the *Salsa* program that you have had.

ACTIVITY & LESSON CONTENT

4. How are children identified to participate in the *Salsa* program?
   Probes: Recruited
   Volunteered

5. How is the *Salsa* program structured at your site?
   Probes: Number of days per week
   Sessions per week
   Hours per session

6. Have you or members of your organization adapted the *Salsa* curriculum from what is specified in the facilitator's guides? *If no*, why not? *If yes*…
   a. How and why was the curriculum adapted?
   b. Did these adaptations meet the goals and principles listed in the facilitator's guides?

7. What, if any, steps do you take to ensure that the *Salsa* activities are appropriate for all of the children?
   Probes: Age
   Ethnicity
   Physically – weight, physical coordination, physical disabilities
   Special Needs

8. What opportunities, if any, are children given to provide feedback about how to improve the *Salsa* program? *If yes*, what if any impact has this had on the program?

9. What aspects of the *Salsa* program have worked and what aspects have not worked?
   Probes: Cultural components
   Nutrition activities
   Physical and movement activities

NETWORKS AND RESOURCES

10. Do you feel that you have all the resources that you need for the *Salsa* program to be successful? *If no*, what resources do you still need?
    Probes: Adequate staff
    Supplies
    Physical space
    Follow up training

11. How important do you feel that community support is to the *Salsa* program at your site and why? *If yes*, what types of support does the program at your site receive from the local community?
    Probes: Community members / organizations
    Local schools and universities
    Parents of participants

STUDENT ENGAGEMENT

12. What strategies do you and your colleagues use to keep children interested during *Salsa*? Do these strategies differ based on the age, culture, or development of the children? *If yes*, in what ways?

13. What strategies do you and your colleagues use to motivate the children to make physical activity and good eating habits a way of life?

EVIDENCE OF IMPACT

14. What changes, if any, have you noticed concerning the childrens'…
    a. attitudes regarding nutrition and physical activity
    b. knowledge regarding nutrition and physical activity
    c. behaviors related to nutrition and physical activity

15. What changes, if any, have you noticed concerning your own attitudes, knowledge, and/or habits?

16. Are you aware of whether any non-participants (i.e., parents, members of the community, local organizations) are benefiting from the *Salsa* program? *If yes*, in what ways are non-participants benefiting from the program?

CONCLUSION

17. Is there anything else you would like to share with us about the *Salsa* program at your site that I haven't asked?

Appendix H:
Observation Protocol

General Background Information

1. Date (include day): _____

2. Site Name: _____

3. Location: _____

4. Observer(s): _____

Activity Observation Information

5. Time Begin: _____ Time End: _____

6. Grade Level(s):_____

7. Location(s) of activity: _____

8a. Number of lessons planned for implementation (check with instructor):

_____4 _____8 _____Other _____Not sure

8b. Lesson _____ of _____ total lessons

9. Participants involved in this activity:

		Start of Session	Mid-Session	End of Session
a.	Total # Program Staff			
b.	Total # Children			
c.	Total # Parents			
d.	Total # Volunteers			
e.	Total # Other:_____			

Activity & Lesson Content

10. Provide a brief description of activity and lesson content (e.g., nutrition, physical activity, culture).

_____

_____

_____

11. Was today's lesson adapted from the original curriculum?

_____No _____Somewhat _____Yes _____Not sure

If somewhat or yes, what were the program adaptations?

_____

_____

_____

12. Are the following **key messages** from the *Salsa, Sabor y Salud* curriculum evident in this lesson?

		Disagree	Agree	Not Sure
a.	Eat foods from each of the food groups every day.	1	2	3
b.	Be sensible about portion size.	1	2	3
c.	Be physically active everyday.	1	2	3
d.	Take small steps for success.	1	2	3

13. Are the following organizational features from the *Salsa, Sabor y* Salud curriculum evident in this lesson?

		Disagree	Agree	Not Sure
a.	Introduction	1	2	3
b.	Review (included in sessions 2-8)	1	2	3
c.	Nutrition activity	1	2	3
d.	Physical activity	1	2	3
e.	Discussion	1	2	3

14. Specify which pedagogical strategies were employed during this lesson.

		Disagree	Agree	Not Sure
a.	Lecture	1	2	3
b.	Class Discussion	1	2	3
c.	Hands-on activity	1	2	3
d.	Grouping strategies	1	2	3
e.	Cross-content integration	1	2	3
f.	"Real-world" connections	1	2	3
g.	Teacher modeling	1	2	3
h.	Other:_____	1	2	3

15. Specify which cognitive activities the children participated in during this lesson.

		Disagree	Agree	Not Sure
a.	Receipt of knowledge (lectures, worksheets, questions, observing, homework)	1	2	3
b.	Application of procedural knowledge (skill building, performance)	1	2	3
c.	Knowledge Representation (organizing, describing, categorizing)	1	2	3
d.	Knowledge Construction (higher order thinking, generating, inventing, problem solving, revising)	1	2	3
e.	Other: _____	1	2	3

16. Are the activities physically, developmentally, and culturally appropriate?

		Disagree	Agree	Not Sure
a.	Physically?	1	2	3
b.	Developmentally?	1	2	3
c.	Culturally?	1	2	3

17. Do the children appear to understand the lesson?

_____Yes _____No _____Not sure

Please Elaborate.

_____

_____

Child Engagement

18. Estimate number of children exhibiting the following engagement behaviors.

		Start of Session	Mid-Session	End of Session
	On-Task Behaviors			
a.	Listening/Watching			
b.	Writing			
c.	Speaking			
d.	Reading			
e.	Hands-on activity			
f.	Teamwork			
g.	Group presentation			
	Off-Task Behaviors			
h.	Passive			
i.	Doing other work			
j.	Listening to others			
k.	Disturbing others			
l.	Playing			

19. Rate the overall child engagement across the duration of this lesson (Select one).

_____ Low engagement (80% or more of the children off-task)

_____ Mixed engagement

_____ High engagement (80% or more of the children engaged)

20. Provide specific examples (i.e. dialogue, affect) of children's attitudes, behaviors and interest regarding the program activities and health and nutrition information.

Program Environment

21. Are staff members responsive to children's questions?

_____

22. Are the children made to feel physically and emotionally secure regardless of their eating habits and preferences, weight, or level of physical fitness?

_____Yes _____No _____Not sure

Provide examples.

_____

23. Did the staff provide opportunities for every child to participate in activities and be acknowledged for their accomplishments?

_____Yes _____No _____Not sure

Provide examples.

_____

24. Do children feel supported and connected with staff members and peers?

_____Yes _____No _____Not sure

Provide examples.

_____

25. Is diversity celebrated and everyone's contribution valued during the *Salsa, Sabor y Salud* program?

_____Yes _____No _____Not sure

Provide examples.

_____

Evidence of Impact

26. Based upon the observed program activities, lesson content, and student engagement/disengagement cues, rate whether the program has had a positive impact on children:

		Disagree	Agree	Not Sure
a.	Attitudes regarding nutrition and physical activity	1	2	3
b.	Knowledge regarding nutrition and physical activity	1	2	3
c.	Behaviors related to nutrition and physical activity	1	2	3
d.	Children are generally satisfied with today's lesson	1	2	3

Additional Notes: