

# HEALTHY 4 LIFE: THE DEVELOPMENT OF A THEATER-BASED NUTRITION AND PHYSICAL ACTIVITY INTERVENTION FOR AT-RISK AFRICAN AMERICAN ADOLESCENTS

by

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(Under the Direction of Rebecca M. Mullis)

## ABSTRACT

Childhood overweight is a major public health concern in the United States (Neumark et al., 2002). African American youth are at greater risk for obesity than Caucasian youth (Kumanyika & Grier, 2006). However, there is limited obesity intervention research in this population (Alio et al., 2006). This study sought to address this issue through the development of a culturally appropriate, theater-based intervention, *Healthy 4 Life*. The purpose of this study is to determine if a culturally appropriate, theater-based nutrition and physical activity intervention is an effective way of conveying health messages to at-risk African American adolescents and their families.

The *Healthy 4 Life* pilot study was completed in two major phases. First, the developmental phase was conducted in two parts to examine the feasibility and appeal of a theater-based health education approach. In part one, we conducted a four week program at a summer camp for at-risk African American adolescents (N=25). During this time, program components were developed and the evaluation instrument was tested. In part two, we conducted the program at an urban middle school for a period of six weeks (N=15). We also

obtained information for program modifications during a focus group. Second, the implementation phase was conducted at another urban middle school to evaluate program effectiveness. The sample included at-risk African American adolescents (N=73). Students were assigned to one of three comparison groups: 1) a Theater-Based Intervention Group, the *Healthy 4 Life* Program; 2) a Classroom Intervention Group, a modified health curriculum during health education class, or 3) a Control Group, the existing health curriculum. Participants were administered a pretest before the start of the program and a posttest at the end of the program. There were significant changes in some health knowledge items ( $P < .001$ ). There were also significant changes in behavioral intentions ( $P < .012$ ). There were no significant changes in preferences and household behavior. All participants in the theater intervention group reported high satisfaction with the program. Conclusively, overall acceptance of this theater-based intervention suggests that theater has potential to be a viable medium for health education for at-risk African American adolescents and their families.

**INDEX WORDS:** African American adolescents, nutrition education, entertainment education, theater, overweight, school-based

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## DEDICATION

***Lord you are my rock, my sword, and shield, I never could have made it without you.***

This work is dedicated to the loving memory of my father, Ernest C. Jackson, Sr., whose smile and spirit could light the world, and to my loving mother, Dr. Josephine W. Jackson, who is my best friend. There are no words that can express my gratitude. Thank you for giving me all of your love and support and 100% of everything I could ever want and need. This work is also dedicated to the memory of Mr. Andrew Permar, world's best producer.

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## **CHAPTER 1**

### **INTRODUCTION**

#### **PURPOSE OF STUDY**

Adolescence is a vulnerable period of life in which major cognitive and physical development occurs (Kagawa-Singer, 1996). During this time adolescents may be influenced by their peers and the media to adopt negative health behaviors including poor eating habits and sedentary lifestyles (Outley & Taddese, 2006; Story, Lytle, Birnbaum, & Perry, 2002) . Low income African American youth are at greater risk for obesity than Caucasian youth (Kumanyika & Grier, 2006). Teaching youth about the importance of healthy lifestyles is particularly important because overweight children are more likely to become obese adults (Fitzgibbon, Stolley, Dyer, VanHorn, & KauferChristoffel, 2002). Finding an appropriate way to reach youth, however, is challenging for health educators and researchers. Using theater to teach health education presents a unique opportunity to reach both at-risk adolescents and their parents. To date, limited research has been conducted in the use of theater to communicate nutrition and physical activity messages to adolescents, especially, at-risk African American adolescents. At-risk adolescents are defined as being low income, living in an inner city neighborhood, and lacking access to resources for healthy development. The purpose of this study was to determine if a culturally appropriate theater-based intervention is an effective way of conveying messages about healthy eating and physical activity to at-risk African American adolescents and their parents.

## **RATIONALE AND SIGNIFICANCE**

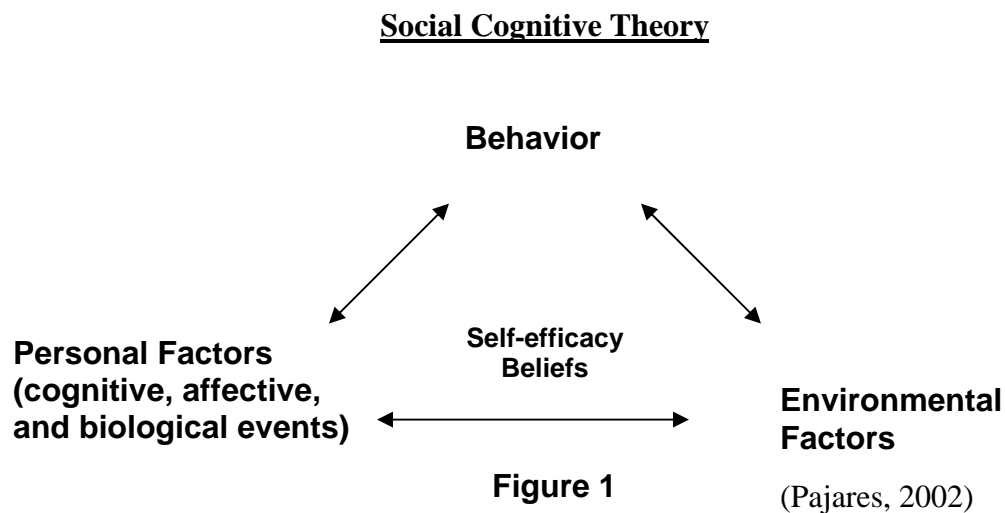
Adolescent food intake in the United States is often high in fat, salt, and sugar, however, lacking in the recommended number of servings of fruits and vegetables, whole grains, and calcium rich foods (Hoelscher, Evans, Parcel, & Kelder, 2002). African American adolescents in particular, are less likely to have access to nutritious foods and options for physical activity (Kumanyika & Grier, 2006). The rationale of this study is to address the imperative need to decrease the number of overweight African American adolescents in the population. Research indicates effective nutrition interventions for adolescents should include peer involvement, a behavioral focus, and community involvement (Hoelscher et al., 2002). Instead of using conventional educational tools, this study used a novel theater-based approach to communicate health messages in an afterschool setting. Four unique and innovative aspects of the *Healthy 4 Life* study are: 1) the use of theater, dance, step, and hip-hop music to capture the attention of adolescents while delivering important messages about healthy eating and physical activity; 2) the use of curriculum instruction that is reinforced with home-based activities; 3) an end of program performance to engage parents in the project; and 4) program aspects that specifically address the barriers that at-risk African American adolescents may encounter when trying to adopt a healthy lifestyle.

Researchers have projected by the year 2020, approximately one third of the US workforce will be comprised of young persons from minority backgrounds (Kagawa-Singer, 1996). The health and well-being of these individuals will be paramount to the country's overall success and productivity (Kagawa-Singer, 1996). Preventive measures are important to eliminate disparities in minority health. Increases in fruit and vegetable consumption and moderate physical activity have been shown to decrease the risk of developing obesity (Yeh et al., 2008).

Without evidenced-based solutions, at-risk African American adolescents may continue to have a high prevalence of overweight and obesity (Kumanyika & Grier, 2006). We found no studies in the literature that used theater to promote both healthy eating and physical activity to youth. This study is significant because it contributes to the dearth of knowledge about the use of theater to promote not only healthy eating, but also physical activity to at-risk African American adolescents.

## **THEORETICAL BASIS OF INTERVENTION**

The use of a theater-based intervention to educate children is grounded in Bandura's Social Cognitive Theory (Bandura, 1986). Social Cognitive Theory recognizes the individual as the self-determining factor in his/her reaction to external stimuli (Bandura, 1986). The central idea in social cognitive theory is that there is an ever-changing, reciprocal relationship between an individual's behavior, personal factors, and environmental factors (Bandura, 1986) (See Figure 1).



Observational modeling and vicarious experience are major principles of Social Cognitive Theory that may be applied to the context of developing a successful theater-based health intervention for African American youth. Through observational modeling, an individual can experience a behavior by watching another person's actions (Bandura, 1986). These vicarious experiences can become more effective when individuals observe someone who is like them performing a behavior (Bandura, 1986). Observational modeling can be improved by providing role models who are similar to the target population (Bandura, 1986). This idea lends support to the contention that a culturally appropriate context is critical to the development of a theater-based health education tool. Our study attempted to influence the health behavior of adolescents by using the arts and positive health behavior role modeling in a culturally appropriate context. The messages conveyed during the intervention were reinforced through the completion of home-based activities.

### **SPECIFIC AIMS**

Specific Aim 1: To develop a theater-based intervention as a means of conveying health messages to at-risk African American adolescents.

Specific Aim 2: To develop home-based educational materials and activities that will engage parents and students in discussing and acting upon making healthy food choices and increasing physical activity.

Specific Aim 3: To evaluate the feasibility and effectiveness of a theater-based intervention by measuring: 1) students' reported changes in knowledge, preferences, behavioral intentions, and household behavior related to healthy food selection and physical activity; and 2) student attitudes toward the intervention.



## **HYPOTHESES**

Hypothesis 1: A theater-based intervention is a viable medium for delivering nutrition and physical activity messages to at-risk African American adolescents.

Hypothesis 2: Participating in a theater-based intervention designed specifically for at-risk African American adolescents will increase student knowledge about the importance of making healthy food choices and increasing physical activity as compared to classroom and control groups.

Hypothesis 3: Participating in the theater-based intervention will influence preferences, behavioral intentions, and household behavior related to making healthier food choices and increasing physical activity as compared to a classroom intervention and control groups.

## **ORGANIZATION OF DOCUMENT**

The subsequent chapters of this document describe the background, development, and implementation of the *Healthy 4 Life* study. Chapter 2 is a review of the literature pertaining to the prevalence of childhood overweight especially among African American youth, the use of arts in education, and the use of a theater-based approach to deliver nutrition and physical activity messages. Chapter 3 is a detailed description of the developmental phase of the study. Feedback from a focus group and experience with program logistics during development provided valuable lessons that contributed to program modifications. Chapter 4 describes the implementation of the study including an analysis of the differences between the theater-based, classroom, and control groups. Chapter 5 is a summary chapter describing the lessons learned from our study, its overall impact, its limitations, and implications for future research.

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## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **CHILDHOOD OVERWEIGHT: A MAJOR PUBLIC HEALTH CONCERN**

Within the past twenty-five years, obesity has been a major contributor to the declining health status of many Americans (Finkelstein, Ruhm, & Kosa, 2005). Obesity is associated with increased risk of developing cardiovascular disease, diabetes, hypertension, and some forms of cancer (Finkelstein et al., 2005). The physical costs of obesity rival its economic costs. The total cost of obesity is an estimated 5-7% (\$75 billion) of the national healthcare expenditure in the United States (US) each year (Finkelstein et al., 2005). Unfortunately, obesity is also taking a toll on the healthy development of youth. Childhood overweight is a major public health concern both globally and locally within the US (Styne, 2001). According to Centers for Disease Control and Prevention, childhood overweight is defined as being at or above the 95th percentile of body mass index (BMI) for age (Ogden et al., 2006). Further, at-risk for overweight is defined as at or above the 85th percentile, but less than the 95th percentile of BMI for age (Ogden et al., 2006). Recent estimates show that roughly 17% (nearly 12 and a half million) of youth ages 2-19 are overweight (Ogden et al., 2006).

Children in the state of Georgia reflect this national trend and are increasingly overweight. The Georgia Childhood Overweight Prevalence Study (GCOPS) conducted by researchers at the University of Georgia and the Medical College of Georgia assessed the prevalence of childhood and adolescent overweight in Georgia (Lewis et al., 2006). The study sample included 4th, 8th, and 11th graders from counties in the “Four Georgia” areas: suburban,

urban, rural growth, and rural decline (Lewis et al., 2006). Researchers demonstrated that 20.2% of the sample was overweight and an additional 16% were at- risk for overweight (Lewis et al., 2006). Overall findings indicated that there is a higher prevalence of overweight among youth in Georgia as compared to national data (Lewis et al., 2006).

With the steady rise in childhood overweight, health professionals have also seen a marked increase in early onset of chronic diseases such as cardiovascular disease, hypertension, diabetes, and asthma in children (Neumark-Sztainer, Story, Hannan, Perry, & Irving, 2002). Obese children are more likely to become obese adults; as a result, many diet-related diseases follow these children into adulthood (Styne, 2001). Not only do overweight and obese children and adolescents experience greater health issues, but also an increased risk for social and psychological problems during childhood and adulthood (Alio et al., 2006). Thus, early intervention is critically needed to reduce rising rates of childhood obesity (Fitzgibbon, Stolley, Dyer, VanHorn, & KauferChristoffel, 2002).

Although genetics plays an important role in the development of obesity, many environmental factors have also served to increase the number of overweight children in the population (Styne, 2001). Poor dietary patterns and lack of physical activity are major contributors to childhood overweight (Styne, 2001). Healthy People 2010 Objective 19-3 addresses the need for the US to reduce of the proportion of children and adolescents who are overweight and obese (*Healthy People 2010*, 2000). However, less than 1% of US adolescents consume meals that meet the nutrient guidelines set forth by the United States Department of Agriculture (Story, Lytle, Birnbaum, & Perry, 2002). Children are inundated daily with billions of dollars in food advertising that promotes fast food, junk food, and soft drinks (Nestle & Jacobson, 2000). American children are more likely to consume soft drinks than nutrient rich

beverages such as milk and 100% fruit juice (French, Lin, & Guthrie, 2003). In fact, soft drink consumption among youth has increased 123% within the past twenty years (French et al., 2003). The rise in soft drink consumption is a major concern because it may add to increased caloric intake, resulting in weight gain. Another factor that contributes to weight gain is the fact that at-home food preparation has been replaced with convenience food, restaurant food, and fast food, which is normally higher in fat and calorie content (Nestle & Jacobson, 2000). Lack of physical activity increases the risk of childhood overweight (Dishman et al., 2006). Children and adolescents are less likely to encounter intense physical activity at school (Alio et al., 2006) and when students are away from school, they spend nearly 21 hours per week watching television (Outley & Taddese, 2006). In addition, research shows that parents directly influence the dietary and physical activity patterns of their children (Fitzgibbon et al., 2002). Poor parental dietary and physical activity habits may negatively influence children (Fitzgibbon et al., 2002).

## **ADOLESCENTS AND CHILDHOOD OVERWEIGHT**

Adolescence is a time of major cognitive and physical development (Hoelscher, Evans, Parcel, & Kelder, 2002). It is also the period of rapid growth when a child changes into a young adult. There are characteristic growth spurts for both girls and boys, which are usually accompanied by increases in appetite (Daniels et al., 2005). During the period of adolescence, girls develop more adiposity around the hips and thighs as well as breasts (Daniels et al., 2005). Girls also have a tendency to become less active during this time, contributing to increases in weight (Dishman et al., 2006). Decreases in physical activity are more prevalent among black female adolescents (Dishman et al., 2006). Boys often have an increase in abdominal fat, grow taller and become more active contributing to decreases in weight (Daniels et al., 2005).

The nutritional status of many adolescents, however, is below average (Story et al., 2002). Adolescent food intake is often high in fat, salt, and sugar, however, low in servings of fruits and vegetables, whole grains, and calcium rich foods (Story et al., 2002). In addition to having poor eating habits, as youth move through adolescence, their participation in physical activity declines (Dishman et al., 2006). The result is that adolescents are more apt to be overweight than younger children; nearly one in five adolescents (~20%) is overweight in the US (Ogden et al., 2006).

When defining adolescents it also important to consider the behavioral aspects of their development. Today's adolescents are described as the millennial generation. As members of the millennial generation (born in or after 1982), adolescents are accustomed to multi-tasking activities such as completing homework, text-messaging, talking on the phone, and being online (Oblinger, 2003). Millennials also exhibit a preference for stimulating learning styles that incorporate teamwork, structured and interactive formats, and the inclusion of technology (Oblinger, 2003). Adolescence is a critical period for the development of obesity (Daniels et al., 2005). Therefore, tailored health education models for adolescents that address their preferred learning styles as well as the relationship between diet, physical activity, and disease is essential.

Interventions designed for adolescents should be developmentally appropriate. There are three major phases of adolescence termed early, middle, and late adolescence (Sturdevant & Spear, 2002). During early adolescence, youth are experiencing pubertal changes and using basic skills for reasoning (Sturdevant & Spear, 2002). In middle adolescence youth demonstrate a need for peer acceptance and approval as well as a progression from less basic to more abstract reasoning skills (Sturdevant & Spear, 2002). During late adolescence youth experience greater self-reliance and the ability to reason through complex issues (Sturdevant & Spear, 2002).

Middle school-aged adolescents (ages 10-14) are early adolescents (Roeser, Eccles, & Sameroff, 2000). In addition to the many changes in physical development which occur during puberty, there are rapid changes in cognitive development (Sturdevant & Spear, 2002). Thinking styles among adolescents may be very different among individuals (Sturdevant & Spear, 2002). Most early adolescents are using literal concepts, rather than abstract reasoning skills (Sturdevant & Spear, 2002). Therefore, lessons for early adolescents may include family discussions about decisions, clear messages, and simple directions. The promotion from elementary to middle school is a paramount adjustment for early adolescents (Roeser et al., 2000). During the two year period between grades 6 and 8 there are major differences in cognitive maturity. Thus, cognitive development should be considered as an important aspect of intervention planning for early adolescents (Sturdevant & Spear, 2002). For example, unlike sixth graders, eighth graders may begin to exhibit characteristics of middle adolescence through thought patterns that include abstract reasoning (Sturdevant & Spear, 2002). Given these developmental changes, interactive interventions should be designed for adolescents that include components such as role playing and the use of scenarios to enhance abstract thinking (Sturdevant & Spear, 2002).

## **AFRICAN AMERICANS AND CHILDHOOD OVERWEIGHT**

Childhood overweight is disproportionately worse for members of minority populations in the US (Ogden et al., 2006). Currently, 26.5% of African American girls, ages 6-11, are overweight, the highest rate of overweight among US children (Ogden et al., 2006). Georgia data showed similar trends with Non-Hispanic black females indicated as the highest risk group for overweight (Lewis et al., 2006).

All age groups of African Americans are at high risk for obesity (Ogden et al., 2006). Data from the 1999-2004 National Health and Nutrition Examination Survey (NHANES) reports

that 20% of African American children ages 2-19 years are overweight (Ogden et al., 2006). The trend follows into adulthood as 76% of African Americans older than 20 years of age are overweight (Ogden et al., 2006). The highest rates of overweight for African Americans exist for those between the ages of 40-59 at 80%. In addition, 45% of those aged 20 and above are obese (Ogden et al., 2006). The problem of obesity is more prevalent among African American women who have the highest rates among all racial/ethnic groups in the US (Ogden et al., 2006). A logical question then becomes: Why are rates of obesity so high among African Americans?

There are several factors that may contribute to the prevalence of overweight among African Americans. First, traditional food choices among African Americans are often high in calories, fat, and sodium (Kumanyika, 2006). Also, many African Americans demonstrate low levels of physical activity (Resnicow et al., 2000). As a consequence, leading health-related causes of death for African Americans include heart disease, cancer, and diabetes (Kumanyika, 2006). Second, in the African American community, the presence of some excess body fat is not viewed as negatively as it is in majority populations (Resnicow et al., 2000). One study found that although African American girls had higher BMIs than Caucasian girls, they perceived their physical appearance and body more positively (Dishman et al., 2006). The findings indicated that cultural values may have some effect on views of body image (Dishman et al., 2006). Thus, African American females with excess body weight may be perceived as normal and desirable by their communities (Kumanyika & Grier, 2006). Third, obesity is related to poverty (Yancey & Kumanyika, 2007). Children from low socioeconomic environments are more likely to be overweight (Yancey & Kumanyika, 2007). Poor neighborhoods, limited access to foods, limited leisure activity, and safety of neighborhood are concerns (Kumanyika & Grier, 2006).



The risk for overweight for African Americans appears to increase with age (Ogden et al., 2006); however, rates are comparable for African American and White females at ages 2-5 (Alio et al., 2006). Rates become more disparate during the developmental periods from childhood through adolescence and into adulthood (Alio et al., 2006), making adolescence a critical period for the development of obesity (Daniels et al., 2005). In addition to less than favorable food habits, studies have shown that as children become adolescents their participation in physical activity plummets; this is particularly true among African American girls (Dishman et al., 2006; Hoelscher et al., 2002). Thus, effective strategies for educating African Americans, especially during childhood and adolescence, about the importance of increasing fruit and vegetable consumption and physical activity to prevent chronic disease, must be implemented and sustained.

### **CHILDHOOD OVERWEIGHT PREVENTION FOR AFRICAN AMERICANS: CULTURAL CHALLENGES**

A number of studies have attempted to impact the prevalence of childhood overweight (Daniels et al., 2005). Many programs have focused on promoting increased intake of fruits and vegetables and increased physical activity (Daniels et al., 2005). Despite the knowledge that African Americans are at increased risk for overweight and obesity, there is only a limited amount of obesity research in this population (Alio et al., 2006). There is an immediate need for the development of successful interventions to address the high prevalence of obesity among African Americans (Alio et al., 2006). The question then becomes: How do we educate at-risk populations, specifically children and adolescents, effectively?

In order to address this question, it is first necessary to understand and overcome challenges encountered in research to improve interventions designed for at-risk populations (Daniels et al., 2005). One major challenge is a lack of trust toward White researchers and their

purposes for conducting research in the African American community (Murry et al., 2004). Abuse of African Americans in research has contributed to this distrust (Murry et al., 2004). An example of this abuse is most apparent in the lack of regard for the lives of African American male sharecroppers used as subjects in the Tuskegee Syphilis Experiment (Washington, 2006). The men in this study were not given treatment although a cure in the form of penicillin was readily available (Washington, 2006). Findings such as this have created much contempt for research within the African American population (Washington, 2006).

Another challenge is that researchers often create interventions for African Americans based solely upon the characteristic of race (Kumanyika, 2006). African Americans are at times treated as having one generalized culture, instead of being considered as a race with diverse members with various cultures and beliefs (Kumanyika, 2006). It is of great importance to find ways to eliminate these challenges in order to conduct successful interventions. For successful implementation of health promotion interventions in minority populations, programs must be designed to address the unique needs of the target population (Daniels et al., 2005). In addition, educational materials and activities for interventions must be culturally appropriate (Fitzgibbon et al., 2002).

## **ENTERTAINMENT EDUCATION: USE OF THE ARTS TO EDUCATE CHILDREN**

Entertainment is an integral part of American life (Singhal & Rogers, 2002). People seek entertainment while exercising, driving, and even pumping gas (Singhal & Rogers, 2002). The entertainment industry, grossing more than 480 billion dollars annually, has capitalized on consumers' growing obsession for constant entertainment (Singhal & Rogers, 2002). Following suit, public health researchers have begun using entertainment education as an effective method for conveying messages to various audiences. Entertainment education is a strategy used to

influence behavior by covertly presenting educational messages through entertainment media (Singhal & Rogers, 2002). Researchers are using the appeal of entertainment to promote and demonstrate healthy lifestyle practices (Kincaid, 2002).

Early entertainment education was most successful in radio and television soap operas (Singhal & Rogers, 2002). Since its inception entertainment education has been channeled through various forms of media such as television, radio, film, print, and theater (Singhal & Rogers, 2002). In order to make entertainment education more effective, knowledge of the characteristics and preferences of the target audience is needed (Singhal & Rogers, 2002). Entertainment education is supported by the principles of Social Cognitive Theory (Slater & Rouner, 2002). A major premise of Social Cognitive Theory is that learning can occur through observing role models, in fact, vicarious learning may at times be more effective than direct learning (Bandura, 1986; Singhal & Rogers, 2002). There are various types of role models in entertainment education (Singhal & Rogers, 1999). Examples are positive role models who are rewarded for their behavior, negative role models who are punished for their behavior, and transitional role models who change from negative to positive behavior (Singhal & Rogers, 1999). An audiences' identification with such role models or characters may temporarily influence an individual's beliefs about certain behavior (Slater & Rouner, 2002).

Many innovative forms of the arts are currently being utilized to educate children and adolescents. Various art forms such as dance, art, poetry, music and creative drama (in a sense, entertainment education) have improved student motivation for learning and increased achievement in reading, writing, and math (Milner, 2000b). Arts-based programs are highly effective for disadvantaged youth as they foster resilience (Milner, 2000a). Resilience is enhanced through social support and building self-esteem (Milner, 2000a) through the arts. Arts

programs in the United States have been effective in engaging and retaining the interest of at-risk youth (Milner, 2000a). Participation in arts-based programs also impacts academic performance of at-risk youth. For example, one alternative high school in New York showed a two-fold increase in graduation rates after creating arts programs for students (Milner, 2000a).

Creative drama aids in developing personal skills in the areas of problem solving, creativity, positive self concept, social awareness, and establishing values (Sutton, 1998). The goals of creative drama are accomplished by allowing participants to act out scenarios where they are engaged in the process of decision making (Sutton, 1998). Students vicariously experience challenges and find ways to overcome problems they may not have experienced earlier in life (Sutton, 1998). Through creative drama, students learn about the results of making poor decisions without suffering repercussions (Sutton, 1998).

Childhood memories of experiences with the arts are often recalled during adulthood. For example, Chorpenning, a famed director of children's theater, discovered that a student who attended theater experiences at the Goodman Theater as a child could not only recall a scene from a play he viewed during childhood, but he had also unconsciously recalled specific lines from the play during a prior conversation (Chorpenning, 1954). She further stated, "Our audiences do not only experience our plays; they may also have the urge to live out what they see!" "This urge may spring into action immediately or bury itself in their deep subconscious, a buried memory to emerge during adulthood" (Chorpenning, 1954).

Presently, theater is used to educate children and adolescents in a variety of subject areas including health education, drug education, environmental education, and nutrition education (Perry, Zauner, Oakes, Taylor, & Bishop, 2002). Theater productions provide a means of successfully communicating nutrition messages in school-based settings (Perry et al., 2002). We

found no evidence of studies using theater to promote both healthy eating and physical activity habits to at-risk African American adolescents. However, there is a crucial need to increase knowledge and promote healthy eating and physical activity in this population (Fitzgibbon et al., 2002).

## **PRELIMINARY STUDIES**

Although there have been various studies conducted to test the effectiveness of using theater to communicate health information such as sexual health, substance abuse prevention, and environmental education, few studies have been conducted to test the effectiveness of using theater to communicate nutrition messages (Perry et al., 2002). In a study conducted by the University of Minnesota, researchers evaluated a theater production about eating behavior of children entitled, “All’s Well That Eats Well.” The play was produced in twenty elementary schools in Twin Cities, Minnesota during the winter of 2000 by the National Theater for Children (Perry et al., 2002). Messages in the play were reinforced via follow-up classroom activities as well as take home activities (Perry et al., 2002). Pretest and posttest questionnaires were given to participants who viewed the play and evaluated it for significant differences in food knowledge, food choices, and food recall (Perry et al., 2002). Findings produced statistically significant effects on improved food knowledge and food choices related to increasing fruit and vegetable consumption in students in grades 1-6 (Perry et al., 2002). The implications are that theater productions can be a cost effective way to deliver nutrition messages to children and can yield at least short-term effects on children’s food knowledge and behavior (Perry et al., 2002).

A similar study in communicating nutrition messages to children via theater was conducted at Tufts University (Singer, 2000). The National Theater for Children produced the

nutrition theater production, “The Prince of the Pyramid,” in New Jersey schools during the fall of 1999 (Singer, 2000). The study design included the use of pretest and posttest evaluations as well as classroom workbooks used to lead children through activities that reinforced the messages in the play (Singer, 2000). Although results from the intervention have yet to be published, researchers suggest that viewing the play actually motivates the students to complete the curriculum activities, making both components integral parts of the intervention (Singer, 2000).

To address the limited amount of research on the use of theater to promote nutrition and physical activity messages to African American children, during the spring of 2004, researchers at the University of Georgia conducted a nutrition theater pilot study designed specifically for low income African American children that evaluated a play entitled “Lil’ Red Ridin’ Thru ‘Da Hood” (Jackson, 2004). The study sample included 298 subjects, of whom 95% were African American, with 90% participating in the free and reduced school lunch program (Jackson, 2004). The play was produced in two inner-city elementary schools in a large urban, public school system. Two additional inner-city elementary schools served as controls. Results indicated that theater is a viable medium to convey nutrition and physical activity messages to low-income African American children in school-based settings (Jackson, 2004). The intervention gained 100% teacher acceptance when rated on overall effectiveness, and 100% of the students reported enjoying the play (Jackson, 2004). Data revealed significant increases in healthy food choices and physical activity choices between pretest and posttest evaluations for intervention subjects as compared to controls (Jackson, 2004).

Although data related to using theater to convey health messages to adolescents is scarce, researchers in Windsor, Vermont, found some promising results with the use of the dramatic

writing method to communicate health messages (Slusky, 2004). Adolescents in the In Your Face Gorilla Theater Troupe participated in creating and performing scenarios about issues for students, parents, and members of the community (Slusky, 2004). Members focused on conveying information about such pertinent issues as teen pregnancy prevention and substance abuse prevention (Slusky, 2004). Having adolescents participate in the delivery of these health messages improved leadership skills and boosted self confidence among troupe members (Slusky, 2004). Posttest evaluation showed decreases in substance abuse among 8th graders in Windsor, Vermont (Slusky, 2004).

In 2005, researchers used peer-led theater to develop a culturally appropriate nutrition education model for Latino immigrants (Colby & Haldeman, 2007). The study evaluated the use of peer-led theater as a nutrition education tool and included a needs assessment in a low-income Latina community, and the use of nutrition theater education to assess the knowledge, attitudes, and behaviors of Latino youth (Colby & Haldeman, 2007). Results showed that participants viewed the American diet as less healthy than the traditional Latino diet (Colby & Haldeman, 2007). Participants also reported an increased preference for vegetables as well as increased intake of beans, fruits, and vegetables, and less sugar after the intervention (Colby & Haldeman, 2007). Researchers concluded that combining nutrition education with theater appears to be effective among Latino youth (Colby & Haldeman, 2007).

## **SUMMARY**

In summary, childhood overweight is a major public health concern in the United States (Styne, 2001). Rates of overweight are projected to be higher in Georgia than in other parts of the country (Lewis et al., 2006). Nearly one in five adolescents are overweight in the US (Ogden et al., 2006). Childhood overweight is disproportionately worse for members of minority

populations in the US (Ogden et al., 2006). Currently, 26.5% of African American girls, ages 6-11, are overweight, which is the highest rate of overweight among US children. (Ogden et al., 2006). Effective strategies for educating African Americans about the importance of increasing fruit and vegetable consumption and physical activity to prevent chronic disease must be implemented and sustained.

Today's health promotion strategies need to be creative and innovative to reach children and adolescents. Using theater to teach health education presents a unique opportunity to reach both at-risk adolescents and their parents. Research indicates effective nutrition interventions for adolescents should include peer involvement, a behavioral focus, and community involvement (Hoelscher et al., 2002). Theater-based interventions allow participants to have personal engagement which enhances program components. Based upon the outcomes of our previous project for Georgia children and the works of others, innovative methods such as the use of theater are a part of successful programs that promote awareness about the importance of fruit and vegetable consumption and physical activity to children and adolescents.



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## **CHAPTER 3**

### **THE DEVELOPMENT OF A THEATER-BASED NUTRITION AND PHYSICAL ACTIVITY INTERVENTION FOR AT-RISK AFRICAN AMERICAN ADOLESCENTS<sup>1</sup>**

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<sup>1</sup> Jackson, C.J. and R.M. Mullis. To be submitted to  
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## **ABSTRACT**

Adolescence is a vulnerable period of life in which major cognitive and physical development occurs (Kagawa-Singer, 1996). During this time adolescents may be influenced by their peers or the media to adopt negative health behaviors including poor eating habits and sedentary lifestyles (Story, Lytle, Birnbaum, & Perry, 2002). Low income African American youth are at greater risk for obesity than Caucasian youth (Kumanyika & Grier, 2006). Thus, there is an immediate need to develop culturally appropriate nutrition and physical activity interventions for African American adolescents. Theater is an under-researched tool for delivering nutrition education (Perry, Zauner, Oakes, Taylor, & Bishop, 2002) and there are no known studies that have examined the use of theater to promote both nutrition and physical activity in adolescents.

The purpose of this study was to evaluate the feasibility and determine the appeal of a theater-based nutrition and physical activity intervention for at-risk African American adolescents. The study was conducted in two parts. In part one, we conducted a four week program at a summer camp for at-risk African-American adolescents (N=25) in a suburban area. During this time, program components were developed and the evaluation instrument was tested. In part two, our sample was drawn from an urban middle school to determine feasibility in an urban setting. All participants (N=15) participated in the program for a period of six weeks. A focus group was conducted with participants to obtain information for program modification.

A description of the developmental process of a theater-based intervention is outlined in this paper. Further, we describe the study design and components, formative evaluation,

participant evaluation, and lessons learned. Results from our intervention show that a theater-based approach to nutrition and physical activity education is feasible and appealing to African American adolescents.

## INTRODUCTION

As children progress through adolescence there is an evident shift in eating patterns from healthy to unhealthy foods (Story et al., 2002). Adolescents are less likely to eat a diet high in fruits and vegetables, calcium, and fiber, and more likely to eat unhealthy and processed foods high in salt, sugar, and fat (Story et al., 2002). During adolescence children gain more independence in making food choices, become more self conscious about body image and appearance, and typically engage in more extracurricular activities (Story et al., 2002). Trends in the United States (US) indicate that adolescents consume excess calories, decrease their physical activity, and many subsequently gain weight (Dishman et al., 2006; Lytle et al., 2004). Currently an estimated 20% of US adolescents are overweight (Ogden et al., 2006). Despite the increased rate of overweight among adolescents, research involving preventive measures such as nutrition education for adolescents is limited (Story et al., 2002).

Rates of overweight in the US are highest among minority populations (Ogden et al., 2006). Overweight is more prevalent among African Americans than among other ethnicities (Ogden et al., 2006). African American girls between the ages of 6-11 have the highest rates of overweight in the nation at 26% (Ogden et al., 2006). Being overweight increases the risk for developing chronic diseases (Kumanyika & Grier, 2006). Distressing data predicts that one in two African American children are likely to develop type 2 diabetes during their lifetime (Yancey & Kumanyika, 2007). Due to limited access and economic constraints, the dietary and physical activity patterns of many African Americans are often less than favorable (Kumanyika & Grier, 2006). Culturally appropriate preventive interventions may provide



progress in educating African Americans about ways to sustain healthy lifestyle behavior. Early intervention is vital for the improvement of this public health concern (Fitzgibbon, Stolley, Dyer, VanHorn, & KauferChristoffel, 2002).

The African American experience is strongly rooted in the oral tradition of storytelling (Banks-Wallace, 2002). For centuries, African Americans have used oral traditions as a way of communicating history and teaching lessons to audiences (Banks-Wallace, 2002). The use of a method similar to the storytelling tradition, such as theater, may prove to be an effective health promotion tool in the African American community (Banks-Wallace, 2002).

Interventions designed for adolescents should be developmentally appropriate (Sturdevant & Spear, 2002). In addition to the many changes in physical development which occur during puberty, there is marked variability of cognitive development among adolescents (Sturdevant & Spear, 2002). Thinking patterns among adolescents may be very different among individuals (Sturdevant & Spear, 2002). Appropriate adolescent programs should include hands-on activities with components that utilize abstract thinking, and problem solving skills (Story et al., 2002).

For members of the millennial generation (born in or after 1982), multi-tasking activities such as completing homework, text-messaging, talking on the phone, and being online is a common practice (Oblinger, 2003). Millennials exhibit a preference for learning styles that incorporate teamwork, structured and interactive formats, and the inclusion of technology (Oblinger, 2003). Art forms such as theater, therefore, may be an appropriate approach to engaging at-risk African American adolescents in learning about healthy behavior. The use of theater is centered around peer involvement and also yields increased self-confidence among adolescents (Sutton, 1998).

Tenets of Bandura's Social Cognitive Theory support the use of theater as an approach to teach health messages (Perry et al., 2002). Vicarious experience is a principle of Social Cognitive Theory that supports the belief that individuals can learn by watching the direct experiences of others (Bandura, 1986). Bandura's concepts of vicarious experience are similar to the principles exhibited in creative drama. Creative drama allows participants to learn about the results of making poor decisions without suffering the repercussions of making mistakes (Sutton, 1998). Creative drama in the classroom yields improvements in students' reading, listening skills, writing, and both verbal and nonverbal communication (Sutton, 1998). The school setting is an ideal atmosphere for improving nutrition and physical activity habits and promoting obesity prevention interventions (Kumanyika & Grier, 2006).

Although there have been various studies conducted to test the effectiveness of using theater to communicate health information such as sexual health, drug education, and environmental education, few studies have been conducted to test the effectiveness of using theater to communicate nutrition messages (Perry et al., 2002). In a study conducted by the University of Minnesota, researchers evaluated a theater production about eating behavior of children entitled, "All's Well That Eats Well." Findings produced statistically significant effects on improved food knowledge and food choices related to increasing fruit and vegetable consumption in students in grades 1-6 (Perry et al., 2002). The implications are that theater productions can be a cost effective way to deliver nutrition messages to children and can yield at least short-term effects on children's food knowledge and behavior (Perry et al., 2002). We were able to identify only one study that used theater as a tool to communicate nutrition messages to pre-adolescents and adolescents (ages 8-12) (Colby & Haldeman, 2007). In 2005, researchers used peer-led theater to develop a culturally appropriate nutrition education model for Latino

immigrants (Colby & Haldeman, 2007). Study findings showed that combining nutrition education with theater appears to be effective among Latino youth (Colby & Haldeman, 2007). While a few studies have focused on the use of theater to promote nutrition messages, to our knowledge there is no published data on use of theater to promote both nutrition and physical activity messages to adolescents, especially African American adolescents.

To fill the research gap we created a program to specifically address the needs of at-risk African American adolescents. For the purposes of this paper an at-risk adolescent is defined as being low-income, living in an inner city neighborhood, and lacking access to resources for healthy development. *Healthy 4 Life* is an interactive nutrition and physical activity intervention that involves conveying health messages using theater, dramatic writing, and dance. The major goals of the program are 1) to improve knowledge, preferences, behavioral intentions, and household behavior of at-risk African American adolescents and their families related to nutrition and physical activity and 2) to engage families in discussing and acting upon adopting a healthy lifestyle. The study was conducted in two parts to examine the feasibility and appeal of a theater-based approach to health education.

## **THE DEVELOPMENTAL PROCESS: PART I**

There were no published studies found on the use of theater as a tool to communicate nutrition and physical activity messages to at-risk African American adolescents. Therefore, to evaluate the feasibility and appeal of our intervention, we developed and conducted a four week program during the summer of 2005 at a summer camp for at-risk African American adolescents (N=25) in a suburban area. The convenience sample consisted of twenty-five participants divided into five groups with five students per group. Students participated in intervention activities during sixty minute sessions each day for four days per week. During sessions we

tested the effectiveness of the program curriculum and developed new program activities. Participants performed dramatic health skits for their families at an evening production on the last day of camp.

### **Pilot of Survey Instrument**

A previously validated instrument was adapted for the purposes of this study (Lane, Horan, & Mullis, 2008). The adapted survey questionnaire was piloted during our four week program. Participants were administered a pretest before the intervention and a posttest (4 weeks later) at the completion of the program. All surveys were coded for confidentiality. Surveys were given in a paper and pencil format, and were administered and read aloud by a UGA staff member. Participants yielded feedback about the clarity of the survey questions and length of the survey. Based on the results of the pilot, the survey was revised and the number of questions was decreased from 61 to 51. The pilot study and survey instrument were approved by the University of Georgia Office of Human Subjects.

### **Program Feedback**

Program results were promising as all participants reported high satisfaction with the theater-based method of learning about health messages. However, we learned some valuable information which we used to develop our program design. First, dramatic writing was difficult for many of the participants. The participants were much more comfortable working with scenes through improvisation and having one person write down their words as they acted out scenarios. Next, although the participants were active and energetic during rehearsals, when the performance day came, they were shy and reserved. We learned that in future studies more opportunities were needed for the participants to develop the skills needed to be comfortable performing in front of an audience. Despite the shyness of the participants, parents were very

supportive of the children and complimented them on their efforts. We discovered that the theater production was an effective way to get parents engaged in dialogue about their children's eating and physical activity habits. Lastly, we learned that theater-based interventions with adolescents should have a controlled number of participants, approximately fifteen to twenty, in order to effectively manage program delivery.

## **THE DEVELOPMENTAL PROCESS: PART II**

### **Recruitment and Description of Study Participants**

During the spring of 2006, the revised theater-based curriculum, *Healthy 4 Life*, was piloted in an urban afterschool setting with at-risk African American adolescents (ages 11-13). We conducted part two of the feasibility study because we envisioned program implementation in an urban setting, therefore we sought to test the appeal of the program with this target population. The study participants were recruited at an urban middle school. As directed by the school principal, we recruited our program participants through the physical education and drama classes of 6<sup>th</sup>, 7<sup>th</sup>, and 8<sup>th</sup> graders attending the middle school. All students were invited to participate in the *Healthy 4 Life* afterschool program. We also included regular announcements about upcoming program events during daily school announcements. Although all students were eligible for participation, the physical activity and drama teachers recommended most of the participants for the program. The study sample included at-risk African American adolescents (N=15). We enrolled three male and twelve female participants. Students were given an assent form to sign themselves and consent forms to be signed by their parents for participation in the program. The forms explained the program and described the survey tool and program procedures. For their participation in the program, students received a healthy snack at each

afterschool session, a jump rope, and hip-hop dance lessons. The study was approved by the Office of Human Subjects at the University of Georgia.

## **Methods**

### **Overview of Study Design**

Our study was a pilot to evaluate the feasibility and appeal of a theater-based nutrition and physical activity intervention with at-risk African American adolescents in an urban afterschool setting. Students participated in seventy-five minute afterschool sessions, two times per week for a period of six weeks. Participants learned about healthy eating and physical activity through the theater. Students also completed home-based activities with their parents. At midpoint in the intervention, we conducted a focus group with eight participants to determine desires for the culminating performance and overall program. We later modified our program based on the participants' feedback. The culminating program event was a dinner theater presentation of an original play, "*Getting on Track*," written and performed by students for parents, family, and friends. All participants were administered a pretest before program implementation and a posttest (six weeks later) after program completion.

### **Intervention**

Our six-week intervention included nutrition and physical activity education, theater and dramatic writing, hip hop dance, and parental involvement. Students also heard from local athletes in the community who shared personal information about how they live a healthy lifestyle. Each component of the intervention was assessed for feasibility during our study. A week by week description of the intervention components is described in Table 3.1.

## **Nutrition and Physical Activity Education Component**

The nutrition and physical activity education sessions were a core component of the intervention. Students were engaged in team building exercises and interactive lessons designed to convey nutrition and physical activity messages. Program leaders led discussions about topics such as recommendations outlined in *MyPyramid* by the US Department of Agriculture, the relationship between diet and disease nutrition label reading, and increasing physical activity (See Appendix G). As the program was conducted afterschool, healthy snacks were provided at each session which included fruit and vegetables and 100% fruit juice. Students were also encouraged to taste new foods. Students prepared a recipe each week such as fruit and yogurt parfaits, turkey roll-ups, and black bean taco salad. Recipes were chosen that were simple to prepare, accessible, and inexpensive. In order to encourage physical activity, students were involved in relay activities, jumping rope, calisthenics, and hip-hop dance. Activities were chosen which were accessible at no cost to participants to encourage participation without monetary or environmental barriers.

Hip-hop dance lessons were provided to help choreograph a dance that was performed during the final theater production. Students practiced the hip hop dance each day to increase physical activity.

## **Theater and Dramatic Writing Component**

The purpose of the theater and dramatic writing component was for students to translate messages learned during the nutrition and physical activity sessions into writing for future script development. This component was designed to be interactive and entertaining for the students. Theater games, exercises, and improvisation were used to introduce students to the playwriting process. For example, in order to reinforce the importance of eating breakfast each day, students

read and acted out a skit entitled *The Breakfast Blues*. Characters' actions in *The Breakfast Blues* revealed consequences of skipping breakfast such as a shortened attention span during class. Students were also given scenarios to solve specific nutrition and physical activity issues with a list of characters and a limited number of props. Through improvisation, participants solved nutrition and physical activity problems in the scenarios. Acting out the solutions allowed students to further explore a variety of nutrition and physical activity topics, such as fitting five servings of fruits and vegetables into the diet each day, learning about healthy and "good-tasting" alternatives to high fat and high sugar foods, and demonstrating ways to participate in at least sixty minutes of physical activity everyday. Program exercises were led by a graduate research assistant, who was assisted by the physical education and drama teachers and program volunteers. Each week, students participated in a brainstorming/writing activity to develop ideas for scenes in the final play production. The scenes provided solutions to barriers that at-risk African American adolescents face when trying to adopt a healthy lifestyle. All students contributed to the overall script development. Practice sessions also focused on developing self-esteem and building the student's confidence to perform in front of others. Eventually, students created their own theater show that offered helpful ways to adopt a healthy lifestyle.

The *Champions of Health Dinner Theater* event was the culmination of our program. Students formally invited family members, friends, community members, and peers to their dinner performance. Students were an integral part of all planning for the event including menu selection and publicity for the event. Participants performed a play entitled, *Getting on Track*. *Getting on Track* was composed of five scenes that chronicled the progress of a young girl, Keisha, who longs to try out for the track team at her school; however, she is not eating properly or participating in regular forms of physical activity. The play setting was in the community



where the students lived and the main characters were friends from the community and school. Characters offered solutions to the barriers that Keisha was facing in order to assist her in earning a place on the track team. Ultimately, Keisha made the track team and did so well she was offered a track scholarship to college.

### **Parental Outreach Component**

During the six weeks of the intervention, nutrition and physical activity messages were reinforced as participants completed home-based activities. Parents were asked on consent forms to assist students in the completion of the home-based activities. The home-based activities were developed following Georgia Quality Core Curriculum objectives ("Georgia Quality Core Curriculum Standards and Resources," 2005) for health and nutrition. Activities were provided in the form of worksheets that reinforced the nutrition and physical activity messages conveyed during intervention sessions. Activities also included skills for the student to serve as the change agent for increasing the parent's healthy food choices and physical activity. The worksheets took approximately 10 minutes to complete. Examples of activities included a 24-hour diet recall and choosing healthy snacks. Students were given school supplies such as pencils for submitting completed school-to-home activities.

In addition to the home-based activities, parents were invited to participate in a one-hour nutrition and physical activity education session that provided pertinent information about creating a healthy lifestyle for themselves and their children. "First Friday" was a school event which took place on the first Friday evening of each month and allowed for students, parents, and teachers to interact in an after-school setting. We delivered health messages to parents through handouts and discussions at a First Friday event. Parents were encouraged to complete

home-based activities with their children. We also prepared a fruit smoothie recipe for students and parents to taste and take home. This was well received among parents and students.

## **DEVELOPMENTAL PROCESS RESULTS**

### **Formative Evaluation: Focus Group Findings**

We conducted a developmental focus group with study participants to gain feedback on creating ideas for a live nutrition theater production and as well as ideas for program improvement. During the focus group we focused on several themes that would provide insight for program design, implementation, and revisions.

#### ***Theme 1: Attitudes about health***

The participants' attitudes about health revealed that being healthy was not relegated to being a particular size. For example, students made comments such as "You can be big and still be healthy to me."; "Just because you're big doesn't mean you ain't healthy."; and "To me being healthy means your body is in the right condition, you have the right treatment, get the right amount of exercise or the right amount of servings of food you should have, you know, the basic things the body needs, like you are not too big, you are not too small, and your insides aren't messed up." The participants also expressed that the healthiest foods were a variety of fruits and vegetables.

#### ***Theme 2: Participant Recruitment and Retention***

Participants were also asked about helpful ways to encourage others to participate and remain in the program. They suggested promoting the program to others as a way to have fun. One student commented, "Have cool people that have a good attitude and don't try to put people down, people should have positive attitudes and stuff, and it will just be fun." An interesting finding from this question was that the students felt that the program should not be shared with

others if food was provided during sessions. Some students felt if there were too many participants there would not be enough food for everyone. “Tell them about the good things we do in the group and the fun we have.” Participants also felt that some may try to take advantage of the food. “Don’t tell them about the food; let it be a surprise.” In addition, suggestions for program incentives to increase participant retention included field trips, money, drawstring backpacks, water bottles, jump ropes, and clothes.

### ***Theme 3: Production Development***

Students also provided insight about the type of production they would like to create. Instead of celebrities many students simply wanted to be the stars of the play themselves. “Forget all the rappers, they are already famous, we want to be famous.” They also preferred that the play be set in their own community and not an imaginary or “Hollywood” setting. Students suggested the theme of the production should include drama and comedy. The students reported that their interests and talents were singing, rapping, writing poetry, acting, and dancing. They were also vocal about liking various

forms of music including rhythm and blues, country, hip hop, and gospel. The students also reported a desire to share the information they learned in the program with their parents. “Like if your parents want to get in shape, they might want to come try it out to see and we can tell them how to get in shape and stay like that.”

### ***Theme 4: Communications and Promotion***

In order to improve communication, participants suggested modes of communication that used technology. Participants reported they had access to computers at home, the library and at school. All students reported having their own cell phone and use of text messaging. The program’s previous name was *Being Healthy the Write Way*, which was used to highlight the

dramatic writing emphasis of the intervention. The adolescents were asked to give the program a new name. The students agreed upon the name *Healthy 4 Life (H4L)*. They also approved the program logo, created by a graphic designer to show active adolescents going toward a healthy lifestyle which can be seen in Figure 3.1.

Overall the reported focus group findings were consistent with the desires and behavior of the millennial generation such as interest in technology, teamwork, and interactive learning formats (Oblinger, 2003). These preferences must be given ample consideration in the design of interventions for this age group.

## **DISCUSSION AND LESSONS LEARNED**

We conducted a successful feasibility study and learned an immense amount from our participants. While the sample size was not sufficient to draw a conclusion for widespread generalizability, we were able to use this study to determine that theater appears to be an innovative and appealing method of communicating messages about the importance of eating healthy and exercising to at-risk African American adolescents. We were able to use this feasibility study as a learning experience to make improvements that we applied later during program implementation and evaluation.

Our program had many highlights. The intervention components were well received by our target population. Students particularly enjoyed the recipe preparation and hip-hop dance lessons. Comments about the program were favorable and supportive of the theater-based concept for nutrition and physical activity intervention. For example, students reported improvements in their intentions to eat more fruits and vegetables each day, and participate in physical activity, as well as asking parents to purchase more fruits and vegetables. All participants reported high satisfaction with producing the *Champions of Health Dinner Theater*

event and using a theater-based method to learn about nutrition and physical activity. We sustained consistent participation throughout the program. Having support from the school's physical activity and drama teachers was also very helpful. Although there were only two parents present at the First Friday event; one hundred percent of the students were in attendance. Ultimately, we worked in partnership with teachers, parents, and students to provide quality programming to engage adolescents in the process of learning how to adopt a healthy lifestyle.

We also encountered some major challenges during our intervention. One challenge was competing with other afterschool activities for our participants. Teachers recruited high achieving students for the program, however, many could not participate because they were involved in several extracurricular activities as well as a tutoring program. Despite this fact, the students who chose to participate in the program were enthusiastic, supportive, and regularly attended program sessions. During future program implementation, we plan to use a recruiting method that is less dependent upon teachers, such as lunchroom recruitment of students. Another obstacle encountered during the intervention was finding a way for the students to grasp the playwriting process in such a short period of time. Although, students performed well during our brainstorming/writing activities, they struggled to write out their thoughts about scenes. Ultimately, an improvisation of scenes for the play was recorded and typed into script form by a graduate assistant. The students needed more time to synthesize the nutrition and physical activity information with the playwriting process. We found during our final program performance that the adolescents became shy and less confident. As a result, we will lengthen the duration of the intervention to accommodate an understanding of both the health education and theater intervention components. While the *Champions of Health Dinner Theater* event was successful, we would like to increase the number of parents who attend the performance and

include parents whose children may or may not be involved in the program. We will connect the dinner theater event with another school event such as a PTA meeting in the future.

Lastly, a supportive school environment is critical for the success of this type of program. While we gained support from several teachers and administrators at the onset of the program, several changes occurred. For example, the school drama teacher transferred to another school during the middle of our program. We also encountered a few scheduling problems with the school calendar. In the future, we would like to have a network of people, such as community volunteers, supporting the program within the school to assist in keeping students focused and motivated.

## **THEATER-BASED INTERVENTION MODIFICATIONS**

In preparation for program implementation we made several changes to the intervention based upon feedback from our formative evaluation. One revision is the incorporation of greater theater exposure from the beginning of the intervention. We created two new theater skits to teach health messages and introduce the use of voice, body mechanics, and expression to students. In addition to the skit, *The Breakfast Blues*, which revealed the consequences of not eating a healthy breakfast, we created *Lunchtime Love*, which teaches about healthy, budget-conscious choices for lunch and snacks, and *Dinner Delight*, which promotes eating more servings of vegetables at dinner instead of fast foods. The skit series will be used to introduce new foods tasted during recipe preparation.

Another enhancement is the inclusion of a theater field trip for students. The purpose of the theater field trip is to expose the students to a formal theater production and a major theatrical venue. The theater field trip will allow the students to witness first hand, the hard work involved in producing a formal theater show. Students will compare a formal theater

production to acting out skits such as those encountered in the program skit series. The theater experience serves as an impetus for the students to invest in the quality of their own production. Another major change was the incorporation of many forms of expression into the dinner theater performance. Students reported interest in various forms of the arts such as poetry, music, step, and rap. In the future, the final performance will incorporate each of these art forms. Finally, in order to increase parent participation, we will connect the final performance to a scheduled PTA meeting at the end of the school year.

## **CONCLUSION**

In conclusion, our feasibility study was significant because it contributed to the knowledge base about the use of theater to promote healthy eating and physical activity to at-risk African American adolescents. During program implementation and evaluation, we plan to use the results from this study to strengthen a future study and increase the number of study participants. Results of this feasibility study suggest that theater is well accepted by students, faculty, and parents and has potential as a viable medium for health education for at-risk African American adolescents.

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**Table 3.1: Healthy 4 Life Program Curriculum Outline**

|        |           |  |
|--------|-----------|--|
| Week 1 | Session 1 | Pretest; Introduction to Healthy Life; Physical Activity (PA)                  |
|        | Session 2 | Food Safety ; Recipe 1; Theater Games; PA                                      |
| Week 2 | Session 1 | The Playwriting Process; Theater Games; The Breakfast Blues Nutrition Skit; PA |
|        | Session 2 | My Pyramid; Recipe 2; Hip Hop Dance Lessons; Athlete Mentoring                 |
| Week 3 | Session 1 | My Community's Health; Brainstorming and Scene Development; PA                 |
|        | Session 2 | Nutrition Label Reading; Recipe 3; PA  |
| Week 4 | Session 1 | Brainstorming and Script Development; Improvisation; Hip Hop Dance             |
|        | Session 2 | Stoplight Snacking ; Recipe 4; PA  |
| Week 5 | Session 1 | Diet & Disease; Goal Setting; Athlete Mentoring                                |
|        | Session 2 | Script Development; Recipe 5; Hip Hop Dance                                    |
| Week 6 | Session 1 | Play Performance Practice  |
|        | Session 2 | Post-test; Play Performance Practice   |

Figure 3.1: Project Logo



## **CHAPTER 4**

### **HEALTHY 4 LIFE: A PILOT STUDY OF THE USE OF ENTERTAINMENT EDUCATION IN THE DEVELOPMENT OF A NUTRITION AND PHYSICAL ACTIVITY INTERVENTION FOR AT-RISK AFRICAN AMERICAN ADOLESCENTS<sup>1</sup>**

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<sup>1</sup> Jackson, C.J. and R.M. Mullis. To be submitted to  
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## ABSTRACT

**Objective:** To develop a theater-based intervention that effectively conveys messages about healthy eating and physical activity to at-risk African American adolescents.

**Design:** A Quasi Experimental Pretest/Posttest Design from January 2007-May 2007. Students were assigned to one of three comparison groups including: 1) a Theater-Based Intervention Group, who participated in the *Healthy 4 Life* Afterschool Program; 2) a Classroom Intervention Group, who completed a standard nutrition and physical education curriculum during health education class, or 3) a Control Group, who participated in the existing health curriculum. All students were administered a pretest and post-test. Data collection occurred before and after intervention at ten weeks.

**Setting:** An urban middle school in the southeastern United States

**Participants:** At-risk African American adolescents in grades 6-8 (N=73)

**Intervention:** Students in the theater-based intervention group participated in seventy-five minute afterschool sessions, two times per week for a period of ten weeks to learn about healthy eating and physical activity, dramatic writing, acting, hip-hop dance, and rap. Students also completed home-based activities with their parents. The culminating event was a dinner theater presentation of an original show "*The People vs. the Healthy 4 Life Allstars*," written and performed by students for parents, family, and friends.

**Main Outcome Measures:** Self-reported nutrition and physical activity knowledge, preferences, behavioral intentions, and household behavior. We conducted t-tests to compare changes in knowledge, preferences, and behavioral intentions, and household behavior within each group. We used a one way analysis of variance (ANOVA) to compare changes between the groups.

**Results:** There were significant changes in some health knowledge items ( $P < .001$ ). There were also significant changes in some behavioral intentions items ( $P < .012$ ). There were no significant differences in preferences and household behavior. Feedback provided from the theater-based intervention group was positive and participants reported high satisfaction with the program. One hundred percent of participants in the theater-based intervention group self reported positive changes in cutting down on sweets and high fat foods (i.e. chips and cookies), and trying to be more physically active.

**Conclusion:** Results of this theater-based intervention suggest that theater has potential as a viable medium for health education for at-risk African American adolescents.

## **BACKGROUND**

Childhood overweight is disproportionately worse for members of minority populations in the US (Ogden et al., 2006). Data from the 1999-2004 National Health and Nutrition Examination Survey (NHANES) reports that 20% of African American children ages 2-19 years are overweight (Ogden et al., 2006) which is 3% higher than the national rate. Currently, 26.5% of African American girls, ages 6-11, are overweight, the highest rate of overweight among US children (Ogden et al., 2006). The GCOPS study indicated rates of childhood overweight in Georgia are higher than the national rate and Non-Hispanic black females were the highest-risk group for overweight (Lewis et al., 2006). A logical question then becomes how do we decrease the prevalence of obesity among African Americans, especially children and adolescents?

To address this question it is important to understand today's adolescents and their lifestyles. They are a part of the millennial generation. The millennial generation is comprised of youth born in or after 1982 (Oblinger, 2003). It is a generation characterized by their constant involvement with the internet, instant messaging, and instant gratification (Oblinger, 2003). Millennials exhibit a preference for learning styles that incorporate teamwork, structured and interactive formats, and the inclusion of technology (Oblinger, 2003). For Millennials, multi-tasking activities such as completing homework, text-messaging, talking on the phone, and being online can be done concurrently with ease (Oblinger, 2003). With competition from so many stimulating activities, it is important to create health interventions that will engage adolescents as well as educate them.

Interventions designed for adolescents should be developmentally appropriate. In addition to the many changes in physical development which occur during puberty, there is marked variability of cognitive development among adolescents (Sturdevant & Spear, 2002).

Thinking styles among adolescents may be very different among individuals (Sturdevant & Spear, 2002). Early adolescents are dealing with the challenges of pubertal changes, having a respect for authority, and using concrete, rather than abstract reasoning skills (Sturdevant & Spear, 2002). Intervention curriculums for early adolescents may include family discussions about decisions, direct messages, and simple, directive instructions and should be appealing and interactive (Sturdevant & Spear, 2002).

Entertainment is a promising method to reach various audiences and is an integral part of American life (Singhal & Rogers, 2002). The average teenager watches 4 hours of television per day and students may spend as much as eleven hours per day on the internet (Oblinger, 2003; Singhal & Rogers, 2002). As such, public health researchers have begun using entertainment education as a method for conveying messages to a range of target populations (Singhal & Rogers, 2002). Entertainment education is a strategy used to influence behavior by covertly presenting educational messages through entertainment media (Singhal & Rogers, 2002).

Many innovative forms of the arts are currently being utilized to educate children and adolescents. Various art forms such as dance, art, poetry, music and creative drama (in a sense, entertainment education) have improved student motivation for learning and increased achievement in reading, writing, and math (Milner, 2000b). Arts-based programs are highly effective for disadvantaged youth as they foster resilience (Milner, 2000a). Resilience is enhanced through social support and building self-esteem (Milner, 2000a) through the arts. Arts programs in the United States have also been effective in engaging and retaining the interest of at-risk youth (Milner, 2000a).

In addition, participation in arts-based programs impacts academic performance of at-risk youth. For example, one alternative high school in New York showed a two-fold increase in graduation rates after creating arts programs for students (Milner, 2000a).

The use of entertainment to educate youth is grounded in Bandura's Social Cognitive Theory (Bandura, 1986). Social Cognitive Theory recognizes the individual as the self-determining factor in his/her reaction to external stimuli (Bandura, 1986). The central idea in social cognitive theory is that there is an ever-changing, reciprocal relationship between an individual's behavior, personal factors, and environmental factors (Bandura, 1986). Observational modeling is a major principle of Social Cognitive Theory that may be applied to the context of developing a successful theater-based health intervention for African American youth. Through observational modeling, an individual can vicariously experience a behavior by watching another person's actions (Bandura, 1986). Vicarious experience can become more effective when individuals observe someone who is like them performing a behavior (Bandura, 1986). The concept of improving observational modeling by providing role models similar to the target population lends support to the contention that a culturally appropriate context is critical to the development of a theater based health education tool. Bandura's concepts of vicarious experience are analogous to the principles exhibited in creative drama, one form of entertainment education that appeals to adolescents.

Creative drama aids in developing personal skills in the areas of problem solving, creativity, positive self concept, social awareness, and establishing values (Sutton, 1998). The goals of creative drama are accomplished by allowing participants to act out scenarios where they are engaged in the process of decision making (Sutton, 1998). Students vicariously experience challenges and find ways to overcome problems they may not have experienced



earlier in life (Sutton, 1998). Through creative drama, students learn about the results of making poor decisions without suffering repercussions (Sutton, 1998).

Although there have been various studies conducted to test the effectiveness of using theater to communicate health information such as sexual health, drug education, and environmental education, few studies have been conducted to test the effectiveness of using theater to communicate nutrition messages (Perry, Zauner, Oakes, Taylor, & Bishop, 2002). We were able to identify only one study that used theater as a tool to communicate nutrition messages to pre-adolescents and adolescents. In 2005, researchers used peer-led theater to develop a culturally appropriate nutrition education model for Latino immigrants (Colby & Haldeman, 2007). Study findings showed that combining nutrition education with theater appears to be effective among Latino youth (Colby & Haldeman, 2007).

Despite the high prevalence of overweight, data related to preventive health interventions for African American youth is limited (Alio et al., 2006). Using entertainment education to teach healthy behavior presents a unique opportunity to reach both at-risk African American adolescents and their parents. For the purposes of this paper an at-risk adolescent is defined as being low income, living in an inner city neighborhood, and lacking access to resources for healthy development. The goal of this study was to test the effectiveness of a culturally appropriate theater-based intervention that conveys messages about the importance of not only healthy eating, but also increasing physical activity to at-risk African-American adolescents.

## **METHODS**

### **Recruitment of Study Participants**

During the spring of 2007, *Healthy 4 Life* was piloted in an afterschool setting with at-risk African American adolescents (ages 11-13). Study participants were recruited from an

urban middle school in Georgia. The school was chosen because the principal and administrative staff were supportive of the program, its student population was 95% African American, and 95% of students participated in the free and reduced lunch program. We began program promotion by informing faculty and administrators about the program during a school faculty meeting. Following this initial meeting, we began recruiting students by visiting homeroom classrooms and giving an overview of the program. In order to reach more students in a time efficient manner, we also used the lunch period to promote our program to students. Our approach involved speaking to each grade level (6-8) about the program. We set up a program information station in the cafeteria and decorated it with balloons to draw the students' attention. After we explained the program and its components, we performed a hip-hop song about nutrition and gave each student a pencil with the program name printed on it. Our approach sparked student interest and made our program more visible within the school.

We instructed interested students to pick up assent and consent forms from the community liaison at the school. The forms explained the program and described the survey tool and program procedures. We also recruited students for our classroom and control groups from students enrolled in health education classes. All interested participants that submitted signed assent and consent forms were eligible to be included in the study. We enrolled seventy-six at-risk adolescents into the study. Students who were not African American were included in the study, but excluded from data analysis. After program completion, participants received a drawstring backpack with the program logo printed on it, and school supplies such as pencils, and a jump rope for their participation. The study was approved by the Office of Human Subjects at the University of Georgia.

## Procedures

*Healthy 4 Life* is a ten-week theater-based nutrition and physical activity intervention. Our program site was located in an at-risk, low income, inner city neighborhood. Students were assigned to one of three comparison groups including: 1) a theater-based intervention group, who received the *Healthy 4 Life* Program; 2) a classroom intervention group, who completed a standard nutrition and health education curriculum during physical education class, or 3) a control group, who completed the existing health education curriculum. A schematic for the study design can be seen in Figure 4.1. All participants were administered a pretest by a UGA staff member before participating in the intervention and a posttest (ten weeks) after the pretest.

Students in the theater-based intervention group were exposed to intervention components for ten weeks in an afterschool setting. The intervention components included nutrition and physical activity education, theatrical dramatic writing, hip-hop dance, and home-based activities completed with parents. At study completion, participants evaluated the program for overall effectiveness and appeal. Students in the classroom intervention group participated in the completion of a modified nutrition and physical activity education curriculum consisting of lessons and handouts once per week with the assistance of a UGA staff member (See Table 4.1).

### NUTRITION AND PHYSICAL ACTIVITY THEATER INTERVENTION

Intervention components were explained in greater detail in a companion article, *The Development of a Theater-Based Nutrition and Physical Activity Intervention for At-Risk African American Adolescents*. Students attended seventy-five minute afterschool sessions two times per week for a period of ten weeks. Sessions included nutrition education, recipe preparation, physical activity education and participation, and theater games/activities to promote ongoing script/production development. Students also had the opportunity to attend a formal theater

show produced by a major theater company. During the ten weeks of the intervention, nutrition and physical activity messages were reinforced through the completion of home-based activities. Parents were asked via consent forms to assist students in the completion of the home-based activities. Examples of activities include a 24-hour diet recall and choosing healthy snacks. Parents were also invited to attend a Program Kickoff Dinner where they participated in a nutrition and physical activity education session. The culmination of the intervention was the *Champions of Health Dinner Theater* event and reception for parents, family, and friends.

Participants were exposed to theater concepts at the start of the intervention. Students read and acted out a series of theater skits to teach health messages and introduce use of voice, body mechanics, and expression to students. The skit series included, *The Breakfast Blues*, which revealed the consequences of not eating a healthy breakfast, *Lunchtime Love*, which taught about healthy, budget-conscious choices for lunch and snacks, and *Dinner Delight*, which promoted eating more servings of vegetables at dinner instead of fast foods. The skit series was also used to introduce new foods tasted during recipe preparation. Participants also experienced attending a live theater production on our program theater field trip. The students attended a show about African American culture at a major theater venue in our city. The purpose of the theater field trip was to expose the students to a formal theater production and a major theatrical venue. The theater field trip allowed the students to witness first hand, the hard work involved in producing a formal theater show. The students learned that a formal theater production is very different from acting out skits such as those encountered in the program skit series. After the show, students were allowed to have a question and answer session with an actor in the show. Participants commented about the details of the set design, the lighting, and the amount of time

the actors committed to practicing for the performance. Overall, the theater experience served as an impetus for the students to invest in the quality of their own production.

Students incorporated not only theater, but many forms of expression such as dance, rap, step, and poetry into the dinner theater performance. Participants performed a theater skit, entitled, *The Trial of the People vs. the Healthy 4 Life Allstars*. In the skit the *Healthy 4 Life* program participants are on trial for trying to eradicate diseases that ravage their community such as obesity, diabetes, heart disease and cancer. The prosecution submits to the judge that the community is managing its diseases just fine. The *Healthy 4 Life Allstars* prove their case by presenting Exhibit A: a group poem, Exhibit B: a step routine, Exhibit C: a hip hop dance, and Exhibit D: a hip hop song about healthy eating and exercise. In order to attract more parents, we included the final performance in a scheduled PTA meeting at the end of the school year. The final performance was well attended and well received. Our program modifications from our formative evaluation proved to be successful.

## **STATISTICAL ANALYSES**

A previously validated instrument was adapted for the purposes of this study (Lane, Horan, & Mullis, 2008). The adapted survey questionnaire was piloted during our feasibility study. The main outcome measures were self-reported nutrition and physical activity knowledge, preferences, behavioral intentions, and household behavior. Data was analyzed using SPSS 15.0. Preference and behavioral intention questions were coded to reveal differences between healthy food and physical activities and unhealthy food and physical activity choices. We conducted t-tests to compare changes in knowledge, preferences, behavioral intentions, and household behavior within each group. We used a one way analysis of variance (ANOVA) to compare changes between the groups.

## RESULTS

Data from Table 4.2 revealed that there were no statistically significant changes in food and physical activity preferences between groups. There was a statistically significant difference between groups in intentions to participate in less sedentary activities ( $P < .000$ ) (See Table 4.3). There were also significant changes in health knowledge pertaining to fruit and vegetable intake for the theater-based intervention group ( $P < .001$ ) and the classroom intervention group ( $P < .044$ ) (See Table 4.4). No differences in health knowledge were seen from pretest to posttest for the control group. There were no significant changes in food preferences and physical activity preferences shown in Tables 4.5 and 4.6. The reported changes in behavioral intentions related to eating healthier foods and participating in physical activity are shown in Table 4.7. There was a significant difference in intentions to eat healthier foods in the classroom intervention group ( $P < .012$ ). There were no significant changes in the theater-based intervention group, however, responses were in the desired direction, indicating that the intervention may have had some influence on participants' intentions to eat healthier foods and participate in more physical activities at posttest. No differences were seen in behavioral intentions from pretest to posttest for the control group. Table 4.8 indicates that there were no significant changes between groups in household behaviors. In Tables 4.9 and 4.10 program evaluation and feedback is provided from participants in the theater-based intervention group.

Overall comments were positive and participants reported high satisfaction with the program. For example, 100% of participants in the theater-based group self reported positive changes in cutting down on sweets and high fat foods (i.e. chips and cookies), and trying to be more physically active.

## DISCUSSION

The purpose of this study was to test the effectiveness of a culturally appropriate theater-based intervention that conveys messages about the importance of not only healthy eating, but also increasing physical activity to at-risk African American adolescents. We evaluated changes in health knowledge, food and physical activity preferences, behavioral intentions, and household behavior. Outcomes indicated that both the theater-based and classroom intervention had positive effects on some aspects of health knowledge, in particular fruits and vegetables. However, we believe the theater-based approach is more appealing to adolescents than a classroom approach to health education. The trend of participants' migrating towards healthier food and physical activity preferences is promising for our pilot data and may show more of an effect with a greater number of participants during an experimental study. The statistically significant effect on behavioral intentions in the classroom intervention group demonstrates some positive effect of the intervention. However, the classroom approach is not as engaging as the theater-based approach for the target population. Other trends in behavioral intentions showed little change, which may suggest the need for a greater focus on behavioral intentions in the intervention. The finding that there were no changes in household behavior suggests a possible need to engage participants in serving as change agents for their households. This outcome may also be associated with the fact that low-income parents face many challenges. The parents of the adolescents in our study, like many low-income parents, are concerned with much more than healthy foods and increased physical activity for their children. Poor neighborhoods, economic constraints, limited access to healthy foods, limited leisure activity, and safety of neighborhood are major concerns (Kumanyika & Grier, 2006). However, program evaluations and feedback from school administrators, teachers, and parents indicated that the theater-based

intervention was appealing. Thus, this type of program could be more easily incorporated into afterschool programs because of this support. In addition, this intervention directly involved parents. Additional focus on enhancing the parent component could potentially lead to healthier family behavior. Lastly, most of the participants in the theater-based intervention group were African American females which may suggest that entertainment education is appealing to girls. This is a notable finding because African American girls have the highest rates of overweight in the US.

There are several limitations to this study. The small sample size limits the generalizability of the results and may account for the lack of significant differences in the three study groups. However, the pilot data is promising for future program development. Further study is needed to assess the effects of a theater-based approach to health education for at-risk African American adolescents. Another limitation is that the sample and school setting were not randomized. As a pilot, the quasi-experimental design needed to be conducted in an environment that was supportive of the program thus providing greater potential for success. The school administrators, faculty, parents, and students involved in our study were supportive of our program.

In addition, there were notable differences between the quantitative data from our evaluation tool and the qualitative data from program feedback produced during program implementation. This finding may be attributable to our evaluation tool. As the scope of our project was program development, we used a previously validated instrument that was adapted and piloted with our target population. However, the evaluation instrument was not specifically tailored for a theater-based intervention. Using an evaluation tool with fewer generalized items and more intervention specific items may have shown greater differences in program effects.



## **FUTURE RECOMMENDATIONS**

Our study provides insight into the developmental process for creating a theater-based nutrition and physical activity intervention for this population. Future recommendations include conducting a randomized-controlled experimental study to further assess the program's effects. The statistical power of the study can be increased by involving more participants; however, the challenges of efficiently managing large students groups, such as behavior problems and lack of attention, may be encountered. To overcome challenges and enhance program success, we recommend staff members be trained for effective program delivery. Our program leader had formal training not only in nutrition, but also creative arts including dramatic writing, play direction, and dance. Many aspects of training are needed to successfully execute a theater-based nutrition and physical activity intervention. In order to effectively replicate this type of intervention a team of individuals with expertise in each aspect of the program is recommended for successful program delivery. An effective method may be having several program leaders work with small student groups at each program session.

We also recommend using a more appropriate evaluation tool that is specifically designed for theater-based interventions. An evaluation tool with direct questions that are less generalized than the questions used on our survey tool may show greater effects of the intervention. We would also like to include items that evaluate participants' changes in self-efficacy as related to adopting a healthier lifestyle. Additionally, as arts programs impact academic performance (Milner, 2000a) we will include an assessment of program effects academic achievement.

In addition, we recommend strengthening the parental component by assessing the barriers and perceptions parents have related to living a healthy lifestyle. Findings could then be

used to develop approaches and materials to address these barriers. For example, the end-of-program performance could include a question and answer session to engage the community in the discussion of improving health outcomes. Further engagement of participants may serve as a catalyst to get families interested in practicing and maintaining healthy lifestyle habits.

## **CONCLUSION**

Our study is one of the first to examine the use of a theater-based approach for nutrition and physical activity intervention for at-risk African American adolescents. Based upon our findings, theater appears to be a viable medium to promote nutrition and physical activity messages to at-risk African American adolescents. Theater-based interventions may potentially provide a successful way of promoting nutrition and physical activity messages to African American adolescents. Future research should perhaps focus on engaging families in entertainment education for health promotion. The afterschool setting was beneficial because there was no competition with classroom learning time. Our study was also fortunate to have a dedicated community liaison and supportive school environment which assisted in program success. However, program expansion should focus on being a part of established community agencies such as Boys and Girls Clubs. Community agency environments that focus on youth development outside of school, where students are accustomed to being involved in a variety of programs, may be ideal for the delivery of entertainment education programs for health promotion.

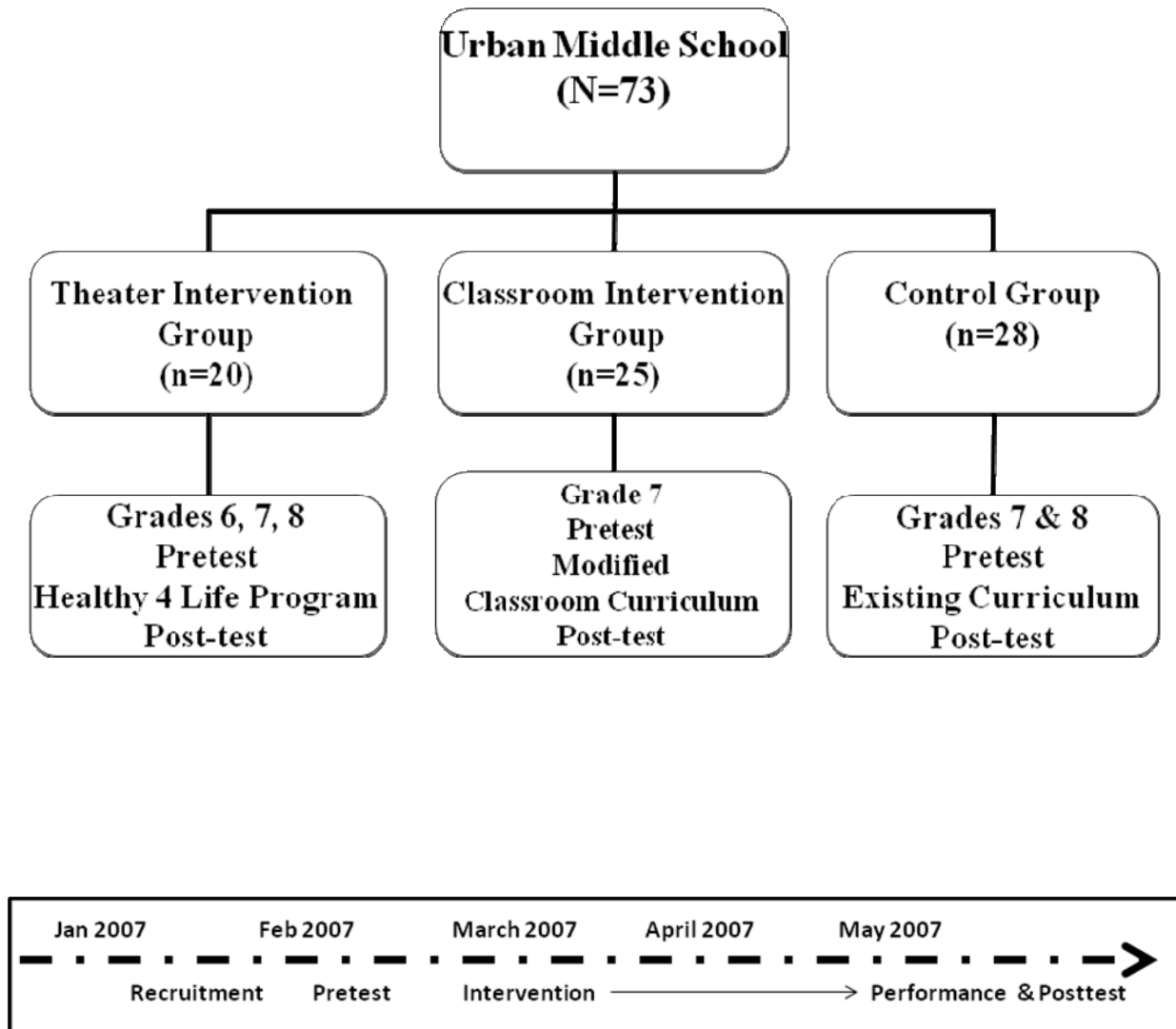
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**Figure 4.1 Study Design and Timeline**



| Table 4.1: Healthy 4 Life Program Curriculum Outline |           |  |   |
|--|-----------|--|---|
|  |           | Theater-Based Intervention   | Classroom Intervention                  |
| Week 1   | Session 1 | Pretest; Introduction to Healthy 4 Life; Physical Activity (PA)                              | Pretest; Program Introduction           |
|  | Session 2 | Food Safety ; Recipe 1; Theater Games; PA  |   |
| Week 2   | Session 1 | The Playwriting Process; Theater Games; PA   | Food Safety                             |
|  | Session 2 | My Pyramid; Health Poems; Hip Hop Dance Lessons  |   |
| Week 3   | Session 1 | Nutrition Label Reading; Theater Games; PA   | My Pyramid; Recipe 1                    |
|  | Session 2 | The Breakfast Blues Nutrition Skit; Recipe 2; Hip Hop Dance                                  |   |
| Week 4   | Session 1 | My Community's Health; PA  | Nutrition Label Reading                 |
|  | Session 2 | Lunchtime Love Skit; Recipe 3; Health Rap; Step Routine                                      |   |
| Week 5   | Session 1 | Brainstorming and Script Development; Improvisation; Health Rap; Hip Hop Dance /Step Routine | My Community's Health                   |
|  | Session 2 | Stoplight Snacking (Red, Yellow, Green); Dinnertime Delight Skit; Recipe 4; PA               |   |
| Week 6   | Session 1 | Diet & Disease; Goal Setting   | Stoplight Snacking (Red, Yellow, Green) |
|  | Session 2 | Script Development; Recipe 5; Hip Hop Dance/Step Routine                                     |   |
| Week 7   | Session 1 | Healthy Alternatives to Fast Food; Physical Activity Everyday; Health Poems; PA              | Diet & Disease; Goal Setting            |
|  | Session 2 | Script Development; Health Rap; Hip Hop Dance/Step Routine                                   |   |
| Week 8   | Session 1 | Theater Field Trip   | Healthy Alternatives to Fast Food       |
|  | Session 2 | Performance Practice   |   |
| Week 9   | Session 1 | Performance Practice   | Physical Activity Everyday              |
|  | Session 2 | Performance Practice   |   |
| Week 10  | Session 1 | Posttest; Performance Practice   | Posttest                                |
|  | Session 2 | Final Performance  |   |

| <b>Table 4.2: Reported Changes in Food &amp; Physical Activity (PA) Preferences Between Groups (N=73)</b> |           |              |                |
|---|-----------|--------------|----------------|
| <b>Preferences</b>  | <b>df</b> | <b>F</b>     | <b>P-value</b> |
| <b>Healthy Foods</b>  | <b>2</b>  | <b>2.76</b>  | <b>0.067</b>   |
| <b>Unhealthy Foods</b>  | <b>2</b>  | <b>0.322</b> | <b>0.726</b>   |
| <b>Physical Activities</b>  | <b>2</b>  | <b>2.55</b>  | <b>0.083</b>   |
| <b>Sedentary Activities</b>   | <b>2</b>  | <b>.213</b>  | <b>0.808</b>   |

\*=  $P < 0.05$

<sup>1</sup>Pre and Post Means were coded a scale from 1 to 3, 1 being the highest preference and 3 being the lowest preference.

| <b>Table 4.3: Reported Changes in Food &amp; Physical Activity (PA) Behavioral Intentions Between Groups (N=73)</b> |           |             |                |
|---|-----------|-------------|----------------|
| <b>Behavioral Intention<sup>2</sup></b>   | <b>df</b> | <b>F</b>    | <b>P-value</b> |
| <b>Healthy Foods</b>  | <b>2</b>  | <b>2.66</b> | <b>0.074</b>   |
| <b>Unhealthy Foods</b>  | <b>2</b>  | <b>2.29</b> | <b>0.105</b>   |
| <b>Physical Activities</b>  | <b>2</b>  | <b>.818</b> | <b>0.444</b>   |
| <b>Sedentary Activities</b>   | <b>2</b>  | <b>9.32</b> | <b>0.000*</b>  |

\*=  $P < 0.05$

<sup>1</sup>Pre and Post Means were coded a scale from 1 to 5, 1 being the highest intention and 5 being the lowest intention.

<sup>2</sup>Behavioral Intentions refer to intentions to eat healthy or unhealthy foods from specific food pairs and intentions to participate in physical or sedentary activities from specific activity pairs



| Table 4.4: Reported Changes in Health Knowledge (N=73) |                       |                        |         |                  |           |         |                |           |         |
|--|-----------------------|------------------------|---------|------------------|-----------|---------|----------------|-----------|---------|
| Knowledge Question                                     | Intervention (n= 20)  |                        | P-value | Classroom (n=25) |           | P-value | Control (n=28) |           | P-value |
|  | Pre Mean <sup>1</sup> | Post Mean <sup>1</sup> |         | Pre Mean         | Post Mean |         | Pre Mean       | Post Mean |         |
| Good ways to stay healthy                              | 3.15                  | 3.36                   | 0.650   | 3.40             | 3.41      | 0.974   | 3.54           | 3.35      | 0.587   |
| No. of F & V you should eat per day                    | 2.65                  | 3.79                   | 0.001*  | 2.95             | 3.56      | 0.044*  | 2.76           | 2.64      | 0.708   |
| Food labels <sup>2</sup>                               | 3.84                  | 3.86                   | 0.944   | 3.67             | 3.94      | 0.213   | 3.86           | 3.93      | 0.670   |
| No. of min healthy children should exercise            | 2.53                  | 2.64                   | 0.754   | 2.62             | 2.33      | 0.336   | 2.46           | 1.96      | 0.100   |
| Exercise benefits                                      | 3.45                  | 3.86                   | 0.115   | 3.54             | 3.61      | 0.776   | 3.26           | 3.47      | 0.485   |

\*=  $P < 0.05$

<sup>1</sup>Pre and Post Means are the means from a knowledge scale from 1 to 5, 1 being the lowest and 5 being the highest.

<sup>2</sup>What information is included on a food label? (i.e. Ingredients, Sugar, Calories)

| Table 4.5: Reported Changes in Food Preferences (N=73) |                       |                        |         |                  |           |         |                |           |         |
|--|-----------------------|------------------------|---------|------------------|-----------|---------|----------------|-----------|---------|
| Food Preference  | Intervention (n= 20)  |                        | P-value | Classroom (n=25) |           | P-value | Control (n=28) |           | P-value |
|  | Pre Mean <sup>1</sup> | Post Mean <sup>1</sup> |         | Pre Mean         | Post Mean |         | Pre Mean       | Post Mean |         |
| Candy Bars   | 1.75                  | 1.50                   | 0.336   | 1.32             | 1.44      | 0.459   | 1.39           | 1.35      | 0.811   |
| Chips  | 1.30                  | 1.21                   | 0.591   | 1.20             | 1.27      | 0.562   | 1.22           | 1.17      | 0.722   |
| French Fries   | 1.25                  | 1.42                   | 0.392   | 1.45             | 1.22      | 0.253   | 1.03           | 1.17      | 0.113   |
| Broccoli   | 1.60                  | 1.43                   | 0.519   | 1.82             | 1.76      | 0.832   | 1.88           | 1.94      | 0.794   |
| Carrots  | 1.82                  | 1.57                   | 0.378   | 1.96             | 1.76      | 0.473   | 1.89           | 2.00      | 0.672   |
| Bananas  | 1.50                  | 1.38                   | 0.674   | 1.52             | 1.38      | 0.509   | 1.39           | 1.53      | 0.483   |
| 100% Juice   | 1.30                  | 1.29                   | 0.953   | 1.16             | 1.17      | 0.966   | 1.18           | 1.12      | 0.595   |

\*=  $P < 0.05$

<sup>1</sup>Pre and Post Means were coded a scale from 1 to 3, 1 being the highest preference and 3 being the lowest preference. Negative food preferences were reverse coded.

| Table 4.6: Reported Changes in Physical Activity (PA) Preferences (N=73) |                       |                        |         |                  |           |         |                |           |         |
|--|-----------------------|------------------------|---------|------------------|-----------|---------|----------------|-----------|---------|
| PA Preference  | Intervention (n= 20)  |                        | P-value | Classroom (n=25) |           | P-value | Control (n=28) |           | P-value |
|  | Pre Mean <sup>1</sup> | Post Mean <sup>1</sup> |         | Pre Mean         | Post Mean |         | Pre Mean       | Post Mean |         |
| Writing  | 2.00                  | 2.07                   | 0.780   | 1.87             | 1.83      | 0.872   | 1.78           | 1.88      | 0.691   |
| Watching TV  | 1.35                  | 1.65                   | 0.209   | 1.28             | 1.22      | 0.733   | 1.17           | 1.47      | 0.059   |
| Acting   | 1.80                  | 1.64                   | 0.555   | 2.00             | 2.00      | 1.00    | 1.82           | 2.00      | 0.460   |
| Singing  | 1.70                  | 1.64                   | 0.835   | 1.72             | 1.94      | 0.466   | 2.00           | 2.11      | 0.685   |
| Dancing  | 1.45                  | 1.36                   | 0.672   | 1.58             | 1.89      | 0.209   | 1.81           | 1.88      | 0.799   |
| Football   | 2.15                  | 1.75                   | 0.205   | 1.64             | 1.61      | 0.903   | 1.26           | 1.44      | 0.358   |
| Basketball   | 1.70                  | 1.36                   | 0.166   | 1.33             | 1.24      | 0.509   | 1.39           | 1.81      | 0.242   |
| Baseball   | 1.90                  | 1.57                   | 0.256   | 1.76             | 1.88      | 0.667   | 1.54           | 1.50      | 0.878   |

\*=  $P < 0.05$

<sup>1</sup>Pre and Post Means were coded a scale from 1 to 3, 1 being the highest preference and 3 being the lowest preference.  
Sedentary physical activity preferences were reverse coded.

**Table 4.7: Reported Changes in Food & Physical Activity (PA) Behavioral Intentions (N=73)**

| Behavioral Intention              | Intervention (n= 20)  |                        | P-value | Classroom (n=25) |           | P-value | Control (n=28) |           | P-value |
|-----------------------------------|-----------------------|------------------------|---------|------------------|-----------|---------|----------------|-----------|---------|
|                                   | Pre Mean <sup>1</sup> | Post Mean <sup>1</sup> |         | Pre Mean         | Post Mean |         | Pre Mean       | Post Mean |         |
| Healthy Foods <sup>2</sup>        | 4.45                  | 3.92                   | 0.200   | 4.95             | 4.22      | 0.012*  | 4.75           | 4.75      | 1.00    |
| Unhealthy Foods <sup>2</sup>      | 3.35                  | 3.57                   | 0.387   | 3.28             | 3.23      | 0.827   | 3.07           | 3.11      | 0.857   |
| Physical Activities <sup>3</sup>  | 2.60                  | 2.38                   | 0.347   | 2.80             | 2.55      | 0.269   | 2.64           | 2.76      | 0.578   |
| Sedentary Activities <sup>3</sup> | 4.85                  | 5.00                   | 0.532   | 3.84             | 4.11      | 0.349   | 4.14           | 4.05      | 0.819   |

\*=  $P < 0.05$

<sup>1</sup>Pre and Post Means were coded a scale from 1 to 5, 1 being the highest intention and 5 being the lowest intention.

Unhealthy food preferences and sedentary physical activity preferences were reverse coded.

<sup>2</sup> Intentions to eat healthy or unhealthy foods from specific food pairs

<sup>3</sup>Intentions to participate in physical or sedentary activities from specific activity pairs

| Table 4.8: Reported Changes in Household Behavior (N=73)                                     |                       |                        |         |                   |           |         |                 |           |         |
|--|-----------------------|------------------------|---------|-------------------|-----------|---------|-----------------|-----------|---------|
| Household Behavior Question  | Intervention (n= 20)  |                        | P-value | Classroom (n= 25) |           | P-value | Control (n= 28) |           | P-value |
|  | Pre Mean <sup>1</sup> | Post Mean <sup>1</sup> |         | Pre Mean          | Post Mean |         | Pre Mean        | Post Mean |         |
| The adult in my house tries to get me to eat F & V <sup>2</sup> instead of sweets for snacks | 2.40                  | 2.43                   | 0.866   | 1.96              | 2.06      | 0.622   | 2.25            | 2.24      | 0.945   |
| I help cook with the adult in my house   | 2.30                  | 2.14                   | 0.499   | 1.92              | 2.06      | 0.541   | 2.04            | 1.82      | 0.334   |
| The adult in my house exercises, walks, or dances with me                                    | 1.95                  | 2.07                   | 0.642   | 1.96              | 2.06      | 0.642   | 1.86            | 2.00      | 0.545   |
| The adult in my house allows me to watch TV or play video games as much as I want            | 1.90                  | 2.00                   | 0.708   | 2.28              | 2.11      | 0.457   | 2.39            | 2.00      | 0.112   |

\*=  $P < 0.05$

<sup>1</sup>Pre and Post Means were coded a scale from 1 to 3, 1 being almost never and 3 being almost always.

<sup>2</sup>Fruits and Vegetables

**Table 4.9: Student Evaluation Responses to Theater-based Intervention (N=15)**

| Question   | Response  | Percentage   |
|--|-----------|--------------|
| Program Satisfaction   | Excellent | 93% (14/15)  |
| Program Appropriateness  | Excellent | 80% (12/15)  |
| Home-based Activities  | Excellent | 80% (12/15)  |
| Reported changes in:   |           |              |
| Cutting down on soft drinks and sugary drinks                      | Yes       | 93% (14/15)  |
| Cutting down on sweets and high fat foods (i.e. chips and cookies) | Yes       | 100% (15/15) |
| Eating more fruits and vegetables                                  | Yes       | 93% (14/15)  |
| Trying to be more physically active                                | Yes       | 100% (15/15) |
| Exercising at least 30 to 60 minutes a day                         | Yes       | 86% (13/15)  |

**Table 4.10: Student Comments and Feedback about Theater-Based Intervention (N=15)**

| Question   | Response  |
|--|---|
| Which program activities did you enjoy the most? | <ul style="list-style-type: none"> <li>• “I enjoyed going on the field trip and also performing at the PTSA meeting.”</li> <li>• “The play, dance, field trip, and rapping.”</li> <li>• “All of it!”</li> <li>• “I enjoyed the dancing, eating better, and really liked the play we had.”</li> <li>• “I enjoyed doing the dance and doing the steps.”</li> </ul>  |
| Additional Comments:                             | <ul style="list-style-type: none"> <li>• “I’ve been trying to lose weight. Every time we come here [we have] healthy food like bananas and juice. I’m just happy with myself, because if it weren’t for [H4L], I wouldn’t have any confidence.”</li> <li>• “I’ve started to eat baked food instead of fast food. “My daddy’s tried to do healthy stuff. My grandma’s making smoothies.”</li> <li>• “I enjoyed your program. Thank you for making my life change. I eat healthy now. I know fruits and veggies are what's best for me.”</li> <li>• “I would like to thank you for all of your support by telling and persuading the Healthy 4 Life students about having great health.”</li> <li>• “I loved the H4L program!”</li> <li>• “Thank you! I hope you come back next year.”</li> <li>• “If it wasn't for you I would be lost.”</li> <li>• “Our teacher is a wonderful teacher to her students.”</li> <li>• “This program was the best program!”</li> </ul> |

## CHAPTER 5

### SUMMARY OF FINDINGS

Childhood overweight disproportionately affects members of minority populations in the US (Ogden et al., 2006). African-American youth specifically are at greater risk for obesity than Caucasian youth (Kumanyika & Grier, 2006). Despite the knowledge that African Americans are at increased risk for overweight and obesity, there is only a limited amount of obesity intervention research in this population (Alio et al., 2006). This study sought to address this issue through the development of a culturally appropriate, theater-based intervention, *Healthy 4 Life*. The purpose of this study was to determine if a culturally appropriate, theater-based nutrition and physical activity intervention is an effective way of conveying messages about healthy eating and physical activity to at-risk African American adolescents and their families. The *Healthy 4 Life* pilot study was completed in two major phases. The developmental phase was conducted in both a suburban and urban setting to examine the feasibility and appeal of a theater-based health education approach. The implementation phase was conducted at an urban middle school to evaluate program effectiveness. There were significant changes in some health knowledge items ( $P < .001$ ). There were also significant changes in behavioral intentions ( $P < .012$ ). There were no significant changes in preferences and household behavior. Results from both the developmental and implementation phases of our study suggested that theater is well accepted by students, faculty, and parents and has potential as a viable medium for health education for at-risk African American adolescents.



## **DEVELOPMENTAL PROCESS: LESSONS LEARNED**

We learned several important lessons from conducting the feasibility study. We found that our intervention components were well received by our target audience. A major lesson from our theater and dramatic writing component was that students had difficulty grasping the playwriting process. Although students performed well during our brainstorming/writing activities, they struggled to write out their thoughts about scenes. We addressed this issue by having an improvisation of scenes for the play which was recorded and typed into script for the students. In addition, our parental component needed to be strengthened. In our school environment, low parental participation was of great concern. Although we connected our parental program event to an existing school event, parental turnout was low.

Other helpful lessons were determining the proper duration of the intervention and gaining insight from participants. We discovered that the students needed more time to synthesize the nutrition and physical activity information with the playwriting process. As a result, we expanded our program from six weeks to ten weeks during program implementation. During our focus group participants addressed major themes that included attitudes about health, participant recruitment and retention, production development, communications and program promotion. Participants provided helpful feedback that shaped improvements for program implementation. Overall the reported focus group findings were consistent with the desires and behavior of the millennial generation (born in or after 1982) such as interest in technology, teamwork, and interactive learning formats (Oblinger, 2003). Inclusion of these learning styles must be given ample consideration in the design of interventions for this age group.

At program completion, students commented on improvements in their intentions to eat more fruits and vegetables each day, and participate in physical activity, as well as asking parents to purchase more fruits and vegetables. All participants reported high satisfaction with producing the *Champions of Health Dinner Theater* event and using a theater-based method to learn about nutrition and physical activity.

## **PROGRAM IMPLEMENTATION: LESSONS LEARNED**

We made several program modifications that enhanced implementation, allowing us to learn more valuable information about conducting an entertainment education based health intervention with our target population. The program modifications were well received during implementation. For example, the theater field trip was a suggestion from the developmental focus group. During implementation, students commented on the theater field trip and its impact on how they approached their own production. Also, drawstring backpacks, another idea from students during development, were very appealing to participants. In addition, students liked the combination of health education and theater in program components such as using the health skit series to teach health information and introduce new recipes. The effectiveness of this method was demonstrated after tasting new recipes. Students that would not try unfamiliar foods prior to the intervention were tasting foods like yogurt and spinach.

We also allowed participants to express themselves not only through theater, but various forms of the arts. Acting, dancing, stepping, and rapping were all motivating components of program sessions which improved the students' confidence and quality of the final performance. Students who were good writers gave the most assistance with script development, those who were good dancers, gave assistance with choreography. Overall every participant was able to

contribute to the final performance in some manner. Entertainment education using various forms of the arts proved to be an effective modification to involve all participating students.

At the end of the program, students requested that we continue having program sessions afterschool. While we were not able to continue the program, we believe that with assistance from a supportive community liaison, and support from parents and students, programs such as *Healthy 4 Life* can be sustained as an integral part of school programming. Although implementation of our program did not show statistically significant differences between the theater-based and classroom intervention groups, data trends in the desired direction and participant feedback indicated high satisfaction and potential effectiveness of the theater-based approach in this population.

#### **ENTERTAINMENT EDUCATION: POTENTIAL FOR NUTRITION AND PHYSICAL ACTIVITY INTERVENTION**

Our work demonstrated that entertainment education is not only appealing to students, but parents, teacher and administrators as well. School administrators and parents were impressed that a program about healthy eating and exercise maintained the participants' attention for a period of ten weeks. Researchers often encounter difficulty with gaining support for school-based interventions. However, because of the appeal of our approach we did not meet resistance and were invited back to all the schools where we conducted our study.

Performances created in programs such as our intervention could serve as models to gain interest from larger audiences as evidenced by other successful entertainment education programs. For example, the series *Roots* was one of the most watched television programs in history and received one of the highest Nielsen ratings recorded (Bird). The series depicted the evolution of slavery in America by following a slave family that descended from a central

character named Kunta Kinte (Bird). As a result, audiences throughout the US engaged in dialogue about the implications of slavery and racism on our society (Bird). Similarly, entertainment education centered upon health issues may increase awareness about ways to address the lack of healthy eating and physical activity habits among Americans. Such programs have the potential to reach large audiences and engage people in discussing and acting upon making choices that lead to a healthier lifestyle. An audiences' identification with role models or characters may temporarily influence an individual's beliefs about certain behavior (Slater & Rouner, 2002). A program with characters modeling healthy behavior may possibly influence individual beliefs about adopting healthy behavior as well as dialogue about health. We believe that expanded dialogue and awareness about health will ultimately lead to some effect on health behavior.

#### **ENTERTAINMENT EDUCATION: POTENTIAL FOR MEDIA ADVOCACY**

Because of its unique approach to nutrition and physical activity education, our study attracted attention from several media venues, creating the potential for media advocacy. Media advocacy, which involves collaboration between mass media and community organizers (Wallack, 1994), is an important part of the advancement of policy change. Innovative and engaging research affords the media with the opportunity to present notable stories which gain the attention of large audiences (Wallack, 1994). Policy changes create new environmental changes (Wallack, 1994) that may influence the decisions people make related to healthy lifestyle practices. A local newspaper and a university magazine printed feature stories about our research (See Appendix H). As a result, we received many phone and email inquiries. We also gained the attention of a major national publication. Media advocacy can assist in keeping public health concerns such as overweight and obesity at the forefront of the public agenda. The

public's concern for particular issues can influence political leaders to create solutions that will influence the nation's health outcomes. For example, recent changes in US food industry practices in portion control, such as "100-calorie snack packs" are a result of public concern and advocacy work around the issue of obesity (Horovitz, 2006).

## **ENTERTAINMENT EDUCATION: POTENTIAL FOR FUNDING SUPPORT**

Innovation is now emphasized as an integral part of community-based research by funding agencies. As evidenced by the increasing rates of childhood overweight, health educators have not identified many effective methods to influence healthy eating and physical activity behavior. Entertainment education is an under-researched and innovative tool to communicate health messages. The innovative aspect of our intervention was appealing to our funding agency. We gained funding support from the Atlanta Falcons Youth Foundation (AFYF) to create a healthy eating and physical activity program that would capture and maintain the interest of at-risk adolescents. Although the AFYF was not familiar with the entertainment education approach, the appeal of using a new approach instead of conventional methods helped us to obtain funding for the development and implementation of our study.

## **LIMITATIONS**

There are several limitations to this study. The small sample size limits the generalizability of the results. However, the pilot data is promising for future program development. Further study is needed to assess the effects of a theater-based approach to health education for at-risk African American adolescents. Our study provides insight on the developmental process for creating a theater-based nutrition and physical activity intervention for this population. Another limitation is that the sample and school-setting were not randomized. For the pilot we chose a quasi-experimental design and selected an environment

that was supportive of the program approach. This allowed us to implement the program in a “best case scenario” with support from school administrators, faculty, parents, and students. However, this did not allow for randomization and limits generalizability of results. An additional limitation was our evaluation tool. As the scope of our project was program development, we used a previously validated instrument that was adapted and piloted with our target population. However, the evaluation instrument was not specifically tailored for a theater-based intervention. As a result, there were notable differences between the quantitative data from our evaluation tool and the qualitative data from program feedback produced during program implementation.

## **FUTURE RECOMMENDATIONS**

Future recommendations include conducting a randomized-controlled experimental study with a larger sample of students to further assess the program’s effects. In order to increase the statistical power the number of participants must be increased. To effectively manage a large student group, staff members should be trained for program delivery. Having program leaders trained in how to successfully deliver the program is particularly important.

Many aspects of training are needed to successfully execute a theater-based nutrition and physical activity intervention. Our program leader received formal training in dramatic theater writing, play direction, and child development through university courses. Our program leader also used her expertise as a registered dietitian to create a sound nutrition and physical activity curriculum for the program. In addition, our staff was equipped with a variety of creative skills which included a strong background in creative arts such as writing, oratory speech, dance, poetry, and music. In order to effectively replicate this type of intervention a team of individuals with expertise in each program aspect is recommended for successful program delivery. An

effective team should consist of a registered dietitian, a hip hop dance instructor, a drama/writing instructor, and a physical education specialist. Each team member could lead program activities to deliver program components.

We also recommend using a more appropriate evaluation tool that is specifically designed for theater-based interventions. Using an evaluation tool with fewer generalized items and more intervention specific items may have shown greater differences in program effects. For example, instead of presenting behavioral intentions questions that ask participants to choose between their intentions to eat specific foods which may or may not be a part of the intervention, such as a candy bar or grapes, a question may be presented that directly asks a more generalized concept such as whether or not participants plan to cut down on eating sweets or increase intake of fruits and vegetables. We would also like to include items that evaluate participants' changes in self-efficacy as related to adopting a healthier lifestyle. Based upon feedback from our participants we believe arts programs cultivate improvements in self-efficacy that can be clearly measured with appropriate evaluation items.

Additionally, we will include an assessment of how this program effects academic achievement. Current research indicates that in comparison to normal weight students, overweight middle school students have lower grade points averages and less participation in athletics, and higher rates of absenteeism, tardiness, and suspension (Shore et al., 2008). Arts programs have improved student motivation for learning and increased achievement in reading, writing, and math (Milner, 2000). We will assess changes in student grade point averages, attendance, and attitudes towards learning. Arts programs in the United States have been effective in engaging and retaining the interest of at-risk youth (Milner, 2000). Arts programs are increasingly effective for disadvantaged youth as they foster resilience in youth (Milner,

2000). Resilience is enhanced through social support and building self-esteem through participation in the arts (Milner, 2000).

We further recommend strengthening the parental component by assessing the barriers and perceptions parents have related to living a healthy lifestyle and developing approaches and materials to address these barriers. One addition may be having the end-of-program performance include a question and answer session to engage the community in the discussion of improving health outcomes. Further engagement of participants may serve as a catalyst to get families interested in healthy lifestyles practices which they may possibly begin to practice and maintain. Entertainment education gives families and communities a way to engage in discussion about the practice of a healthy lifestyle.

Another recommendation is careful consideration of the program environment. The after-school setting was beneficial because there was no competition with classroom learning time. Our study was also fortunate to have a dedicated community liaison and supportive school environment which assisted in program success. However, even when school environments are supportive, there is competition for student instructional time and the main focus is of course academic development. In addition, teachers and community liaisons play many roles in assisting with existing afterschool programs, such as afterschool tutorial and coaching of sports teams. Therefore, school environments have greater potential for burnout of school-based program assistants and a lack of regard for extraneous school programs.

A solution to this problem may be to focus program expansion on being a part of established community agencies such as Boys and Girls Clubs of America. Community agency environments that focus on youth development outside of school, where students are accustomed to being involved in a variety of programs, may be ideal for the delivery of entertainment



education programs for health promotion. Established community agencies often focus upon overall youth development. For example, the mission of the Boys and Girls Club of America (BGCA) is “*to enable all young people, especially those who need us most, to reach their full potential as productive, caring, responsible citizens*” (“Mission of the Boys and Girls Clubs of America,” 2008).” A major focal point of BGCA programming is to provide “*life-enhancing programs and character development experiences*” (“Mission of the Boys and Girls Clubs of America,” 2008).” Innovative approaches to health education such as entertainment education have character enhancing components that may be well suited for such community agency environments. Overall program effects could possibly be strengthened in these environments as participants may be more comfortable participating in entertainment education programs outside of the school environment.

## **CONCLUSION**

Our study was significant because it contributed to the knowledge base about the use of theater to promote healthy eating and physical activity to at-risk African American adolescents. During future development, we plan to use the results from this study to strengthen our program’s parental component, evaluation tool, and program delivery environment. Results of this study suggest that theater/entertainment education approaches are well accepted by students, faculty, and parents and have potential as a viable medium for health education for at-risk African American adolescents.

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## **APPENDICES**

## APPENDIX A

School I. D. # \_\_\_\_\_

Student I.D. # \_\_\_\_\_

### **Wait!! Don't Tell Me!**

**1. A good way to stay healthy is:**

- ☐ <sub>1</sub> Eat more fruit and vegetables
- ☐ <sub>2</sub> Choose low-fat foods
- ☐ <sub>3</sub> Exercise everyday
- ☐ <sub>4</sub> All of the above
- ☐ <sub>5</sub> Don't Know



**2. How many servings fruits and vegetables should you eat a day?**

- ☐ <sub>1</sub> One
- ☐ <sub>2</sub> Three
- ☐ <sub>3</sub> Four
- ☐ <sub>4</sub> Five or more
- ☐ <sub>5</sub> Don't Know

**3. In recent years, type 2 diabetes has rapidly increased among children:**

- ☐ <sub>1</sub> True
- ☐ <sub>2</sub> False
- ☐ <sub>3</sub> Don't Know

**4. The following information is included on Food Labels:**

- ☐ <sub>1</sub> Ingredients
- ☐ <sub>2</sub> Sugar
- ☐ <sub>3</sub> Calories
- ☐ <sub>4</sub> All of the above
- ☐ <sub>5</sub> Don't Know

**5. Healthy children should participate in at least \_\_\_\_ minutes of physical activity each day.**

- ☐ <sub>1</sub> 20
- ☐ <sub>2</sub> 60
- ☐ <sub>3</sub> 45
- ☐ <sub>4</sub> 30
- ☐ <sub>5</sub> Don't Know

**6. Exercise helps you:**

- ☐ <sub>1</sub> Sleep better
- ☐ <sub>2</sub> Maintain a healthy weight
- ☐ <sub>3</sub> Keep your bones strong
- ☐ <sub>4</sub> All of the above
- ☐ <sub>5</sub> Don't Know



**7. I must participate in team sports in order to get good exercise:**

- ☐ <sub>1</sub> True
- ☐ <sub>2</sub> False
- ☐ <sub>3</sub> Don't Know

**I Like it Like That!**

**From the following list if foods and drinks indicate if you like the food or drink a lot, a little, not at all, or don't know:**

| <b>Food</b>            | <b>A lot <sub>1</sub></b> | <b>A little <sub>2</sub></b> | <b>Not at all <sub>3</sub></b> | <b>Don't Know <sub>4</sub></b> |
|------------------------|---------------------------|------------------------------|--------------------------------|--------------------------------|
| 8. Candy Bar           | <input type="radio"/>     | <input type="radio"/>        | <input type="radio"/>          | <input type="radio"/>          |
| 9. Broccoli            | <input type="radio"/>     | <input type="radio"/>        | <input type="radio"/>          | <input type="radio"/>          |
| 10. Chips              | <input type="radio"/>     | <input type="radio"/>        | <input type="radio"/>          | <input type="radio"/>          |
| 11. 2% Milk            | <input type="radio"/>     | <input type="radio"/>        | <input type="radio"/>          | <input type="radio"/>          |
| 12. Cheeseburger       | <input type="radio"/>     | <input type="radio"/>        | <input type="radio"/>          | <input type="radio"/>          |
| 13. 100% Orange Juice  | <input type="radio"/>     | <input type="radio"/>        | <input type="radio"/>          | <input type="radio"/>          |
| 14. Carrots            | <input type="radio"/>     | <input type="radio"/>        | <input type="radio"/>          | <input type="radio"/>          |
| 15. French Fries       | <input type="radio"/>     | <input type="radio"/>        | <input type="radio"/>          | <input type="radio"/>          |
| 16. Soda (Soft Drinks) | <input type="radio"/>     | <input type="radio"/>        | <input type="radio"/>          | <input type="radio"/>          |
| 17. Banana             | <input type="radio"/>     | <input type="radio"/>        | <input type="radio"/>          | <input type="radio"/>          |

**From the following list if activities indicate if you like the activity a lot, a little, not at all, or don't know:**

| <b>Activity</b>     | <b>A lot <sub>1</sub></b> | <b>A little <sub>2</sub></b> | <b>Not at all <sub>3</sub></b> | <b>Don't Know <sub>4</sub></b> |
|---------------------|---------------------------|------------------------------|--------------------------------|--------------------------------|
| 18. Acting          | <input type="radio"/>     | <input type="radio"/>        | <input type="radio"/>          | <input type="radio"/>          |
| 19. Dancing         | <input type="radio"/>     | <input type="radio"/>        | <input type="radio"/>          | <input type="radio"/>          |
| 20. Football        | <input type="radio"/>     | <input type="radio"/>        | <input type="radio"/>          | <input type="radio"/>          |
| 21. Writing         | <input type="radio"/>     | <input type="radio"/>        | <input type="radio"/>          | <input type="radio"/>          |
| 22. Rapping         | <input type="radio"/>     | <input type="radio"/>        | <input type="radio"/>          | <input type="radio"/>          |
| 23. Basketball      | <input type="radio"/>     | <input type="radio"/>        | <input type="radio"/>          | <input type="radio"/>          |
| 24. Watching TV     | <input type="radio"/>     | <input type="radio"/>        | <input type="radio"/>          | <input type="radio"/>          |
| 25. Mountain Biking | <input type="radio"/>     | <input type="radio"/>        | <input type="radio"/>          | <input type="radio"/>          |
| 26. Baseball        | <input type="radio"/>     | <input type="radio"/>        | <input type="radio"/>          | <input type="radio"/>          |
| 27. Singing         | <input type="radio"/>     | <input type="radio"/>        | <input type="radio"/>          | <input type="radio"/>          |

### **My Choices**

**Thinking ahead to next week, indicate which food or drink in each pair you would choose for a snack.**

28.           1 ☐ Cookies  
                  or,  
                  2 ☐ Grapes
29.           1 ☐ A fruit smoothie  
                  or,  
                  2 ☐ Ice Cream
30.           1 ☐ Bologna sandwich  
                  or,  
                  2 ☐ Turkey sandwich
31.           1 ☐ Graham Crackers  
                  or,  
                  2 ☐ Honey Bun
32.           1 ☐ Fruit Juice (100% Orange or apple juice).  
                  or,  
                  2 ☐ Soda



**Thinking ahead to next week, indicate which activity in each pair you would choose to do.**

33.    1 ☐ Working on the computer  
          or  
          2 ☐ Jumping Rope
34.    1 ☐ Playing tag  
          or  
          2 ☐ Playing board games
35.    1 ☐ Watching T.V.  
          or  
          2 ☐ Dancing

36. 1 ☐ Riding a bicycle  
or  
2 ☐ Reading



37. 1 ☐ Playing video games  
or  
2 ☐ Playing kickball

38. List the activity you like to do the most after school and on the weekends?

---

39. During the past 12 months (1 year) have you participated in any sports teams such as football, baseball, softball, soccer, basketball, or dance team?

- ☐ Yes  
☐ No

*If yes then answer the next question:*

40. If yes, how many?

- ☐ 1 team  
☐ 2 teams  
☐ 3 or more teams

### **Eating with My Family**

*After each sentence indicate if the sentence is true for you almost never, sometimes, or almost always."*

41. How often have you seen an adult in your family eating fruit?

- 1 ☐ Almost never  
2 ☐ Sometimes  
3 ☐ Almost always

42. How often have you seen an adult in your family eating vegetables?

- 1 ☐ Almost never  
2 ☐ Sometimes  
3 ☐ Almost always

**43. The adult in my house tries to get me to eat fruit and vegetables instead of sweets for snacks.**

- 1 ☐ Almost never
- 2 ☐ Sometimes
- 3 ☐ Almost always



**44. I help cook with the adult in my house.**

- 1 ☐ Almost never
- 2 ☐ Sometimes
- 3 ☐ Almost always

**45. My family eats out in fast food restaurants?**

- 1 ☐ Almost never
- 2 ☐ About once a month
- 3 ☐ About once a week
- 4 ☐ More than once a week

**Exercising With My Family**

**For each question indicate if it almost never happens, sometimes happens, or almost always happens in your home.**

**46. An adult in my house tries to get me to do activities outside instead of watching T.V.**

- 1 ☐ Almost never
- 2 ☐ Sometimes
- 3 ☐ Almost always

**47. An adult in my house goes for a walk, dances or exercises with me**

- 1 ☐ Almost never
- 2 ☐ Sometimes
- 3 ☐ Almost always

**48. I have seen an adult in my house exercise**

- 1 ☐ Almost never
- 2 ☐ Sometimes
- 3 ☐ Almost always

**49. The adult in my house allows me to watch T.V. and play video or computer games as much as I want**

- 1 ☐ Almost never
- 2 ☐ Sometimes
- 3 ☐ Almost always

**50. I am a:**

- 1 ☐ Girl
- 2 ☐ Boy



**51. I am:**

- 1 ☐ African American/Black
- 2 ☐ Latino/Hispanic
- 3 ☐ Caucasian/White
- 4 ☐ Other

## APPENDIX B

### The Breakfast Blues

#### Characters

Narrator; Teacher: Ms. Newton; Student 1: Ron;

Student 2: Keisha; Student 3: April

#### Props

banana; notebook; Flamin'Hot Cheetos; Box of Cereal



Narrator: It is a typical morning at Prince Middle School. The Teacher, Ms. Newton is teaching her 8th grade science lesson when she notices Ron is slumped over in his chair holding his stomach. Out of concern she asks Ron:

Ms. Newton: (stands in front of the class with a notebook in her hands, Ron, are you okay? It looks like you're not feeling so well.

Ron: I'm okay, Ms. Newton, but I think my stomach is upset.

Ms. Newton: Really?

Ron: Yeah, it gets really mad at me when it's empty!

Ms. Newton: But it's 1st period, Ron, didn't you eat breakfast this morning?

Ron: No, Ms. Newton, I just didn't have time.

Ms. Newton: There are ways to make a quick and easy breakfast, you know. Keisha, did you have breakfast?

Keisha: Sure, I had a banana, and a glass of 100% orange juice right before I left for the bus stop.

Ms. Newton: And what did you have April?

April: I had a fruit smoothie! There's fresh fruit, like strawberries and bananas, and 100% orange juice! It tastes sooooo good! And the best part is, it only takes 5 minutes to make!

Ms. Newton: See, Ron, it's not that hard to make time for breakfast. I had a bowl of cereal with 2% milk and a banana.

(Ms. Newton shows the students a banana and her box of cereal)

Ms. Newton: Just be sure to have breakfast EVERY morning. It helps you start the day off right so you can stay focused on the lesson...

(Ron fumbles with something in his pocket)

Ms. Newton: and not whatever that is in your pocket. What are you doing?

Ron: Oh, this...well this is umm....my breakfast.

Keisha: I thought you didn't have any breakfast.

Ron: I didn't, it's still in my pocket.

April: What is it, Ron?

Ron: It's my favorite breakfast food, it's spicy, hot, and it only cost 30 cents! My Flamin' Hot Cheetos!

April: That is not a breakfast food!

Ron: It is to me, breakfast, lunch, dinner, snack.....whatever you want to call it!

Ms. Newton: Now, now students. We can eat a variety of foods for breakfast, but remember to choose wisely. It's okay to have Flamin' Hot Cheetos sometimes, just not all of the time. You may want to try something more nutritious for breakfast, Ron, like a fruit smoothie!

Ron: But Ms. Newton, How do I make a fruit smoothie?

(End Scene)

Narrator: What do you think Ms. Newton will tell Ron? What Ingredients are needed to make a fruit smoothie? Tomorrow we'll find out by making our own fruit smoothies!

The End

## Lunchtime Love

### Characters

Narrator; Teacher: Ms. Newton;

Student 1: Ron; Student 2: Keisha; Student 3: April

### Props

A bag of Flamin'Hot Cheetos



Narrator: It's another morning at Prince Middle School. The Teacher, Ms. Newton is talking to her 8th grade health science students about a healthy recipe they made during class...

Ms. Newton: Well, Ron did you enjoy the fruit smoothies we made yesterday?

Ron: Oh yeah, Ms. Newton! My smoothie was delicious!

Ms. Newton: Great! Do you think it's something you could make for breakfast before you come to school?

Ron: I know I could, Ms. Newton, it was so easy to make!

April: I told you it was good! What'd you put in yours?

Ron: Ooh, I blended up some strawberries, bananas, apple juice, ice, and even some of that low-fat vanilla yogurt!

Ms. Newton: What, Ron, you actually liked the yogurt?

Ron: Umm-hmmm( rubs his stomach and nods his heads) I NEVER thought I'd like it, but when you put it all together it tastes great! I even made one this morning!

Keisha: That's great, Ron!

Ron: Now I can pay attention in class until my favorite period of the day!

Keisha: What 's that?

Ron: LUNCHTIME! And since I didn't have to eat them for breakfast, I can eat my Flamin' Hot Cheetos for lunch. (pulls a big bag of Flamin Hot Cheetos out of his bookbag)

April: Hey I'll give you some of my honey bun if you give me some Flamin' Hots!

Keisha: Hey Ron, I'll give you a Sprite and some Twix for some Cheetos!

Ms. Newton: Now students, we just talked about eating a healthy breakfast, and you all seemed to be doing so well. But now you've got cheetos, honey buns, soda and candy for lunch. You really should think about choosing some healthier foods.

Ron: But Ms. Newton, we're just kids! We can't eat salad and vegetables all of the time...we gotta' have some fun.

Ms. Newton: That's true Ron, but healthy eating isn't a punishment. It's good and good for you. Like I said before you can have soda and candy and other treats sometimes, but overall you should be trying to eat at least 5 fruits and vegetables a day.

Ron: What!? Five fruits and vegetables, I can even name five fruits and vegetables!

Ms. Newton: Sure you can Ron, think about all the delicious fruits and vegetables you like to eat. I like grapes, strawberries, pineapple, carrots, and broccoli. See I just named five right there.

April: Well, really it's not that bad, I guess I could have a piece of fruit with my lunch.

Keisha: Yeah, and I like baby carrots with ranch dip, so I could eat that afterschool instead of candy.

Ron: Well, I don't know, I love lunch and I want to get full, fruits and vegetables can't make you full!

Ms. Newton: Well, what if we make something for lunch that's healthy, tastes good and it will make you full?

All students: I'm all for it! Sounds good to me!

Ms. Newton: Okay, tomorrow we'll make our very own bean burritos.

Narrator: What do you think will be the ingredients for the bean burritos? Can you name 5 fruits and vegetables you like to eat? How can eating more fruits and vegetables improve your health?

The End

## Dinner Delight

### Characters

Narrator; Teacher: Ms. Newton;

Student 1: Ron; Student 2: Keisha; Student 3: April



Narrator: It's Monday morning at Prince Middle School. The students are walking down the hall to their 8th grade health science students and discussing what happened over the weekend.

April: So what did you end up doing with your little cousins on Saturday?

Keisha: On we went to the park and hung out and chilled. And you're not gonna believe it, but when we got back I made them some bean burritos and they loved 'em!

April: For real! You gotta' tell Ms. Newton!

Narrator: The students enter the classroom and take their seats.

Ms. Newton: Hello class! I hope everyone had a wonderful weekend! Please turn your books to page 79 so we can discuss the benefits of exercise.  
(Keisha raises her hand)

Keisha: Ms. Newton, my little cousins were over my house this weekend and they wanted to go to McDonald's when we left the park. Instead, I told them I'd make them some bean burritos and they loved them! The best part is I saved my allowance money and everyone was full and happy!

Ms. Newton: Wow! That's great Keisha! Students you are really learning a lot from our healthy meal unit. I am so proud to see you are making changes in your eating habits! I told you healthy eating can be GOOD and good for you. The other part of keeping your body healthy is exercising. Can anyone tell me how often kids should exercise?

Ron: Oh, I know, everyday! I play basketball and I dance. You know I gotta practice my moves.

April: What moves? You can't dance Ron! Moving around like a chicken is not dancing.

Ron: What? I can dance, y'all are just haters!

Ms. Newton: Well either way dancing is good exercise. Can anyone tell me how long you should exercise?

Keisha: I think it's 60 minutes a day.

Ms. Newton: Great! That's right, Keisha. There are all kinds of exercises you can do. I like swimming, aerobics, and tennis. What are some exercises you like to do?

April: Well, I like cheerleading, soccer, and running track.

Ms. Newton: Good April, those are all team sports. What are some things you like to do on your own?

Keisha: Well sometimes I take my little sister for a walk to the park or we dance to music videos or CDs at the house. She likes to practice jumping rope, too.

Ms. Newton: Great those are all good ideas. See it's important to eat a variety of healthy foods and exercise everyday.

Ron: Speaking of food, what are we going to make for our dinner unit?

Ms. Newton: Oh, I was going to surprise you but I guess I tell you now. We're going to make one of my favorite dinner recipes. It has grains, meat, cheese, and vegetables... pita pizzas!

Ron: Is pizza healthy?

Ms. Newton: It is when you use the right ingredients.

All Students: Alright we can't wait until tomorrow!

Narrator: Why do you think Ms. Newton told Ron that pizza can be healthy? What ingredients can you include to make pizza healthy? What ingredients can you leave off? We will find out tomorrow when we make our own pita pizzas.



## APPENDIX C

### Getting on Track

A play in one act

by

The Healthy 4 Life All-Stars

## CAST OF CHARACTERS

### **Narrator**

**MarKeisha**, 11, 6<sup>th</sup> grader at X Middle School who wants to make the track team but doesn't know anything about healthy eating and exercise

**Danielle**, 13, 8<sup>th</sup> grader at X Middle School, 1<sup>st</sup> place track star in the state of Georgia, plans to run track in high school and earn a track scholarship to Clark Atlanta University helps educate MarKeisha

**Bryan**, 12, 7<sup>th</sup> grader at X Middle School, track star

**Coach Lewis**, 29, Tough Track Coach at X Middle School

**Red Store Cashier**, 35, Very impatient and snappy, but knows about healthy eating, has diabetes from unhealthy habits he had when he was younger

**J.R.**, 9, MarKeisha's younger brother

**Maia (My-ah)**, 11, 6<sup>th</sup> grader at X Middle School, MarKeisha's best friend, helps MarKeisha stay focused on making the track team

**Big Mama**, 62, retired teacher and an awesome cook, and big jokester, helps educate MarKeisha about healthy eating and exercise

**Charles** (Hip Hop Dance Teacher), teaches hip hop dance afterschool with hip hop dance team

**Christa**, 12, (Hip Hop Dance Team Member) Star dancer

**Jay**, 13 (Hip Hop Dance Team Member) Star dancer

### **Other Dancers**

**Ms. Jackson**, 45, MarKeisha's Mama, loves to cook and exercise, she is always trying new recipes and encourages MarKeisha to eat healthy and exercise

**Mr. Jackson**, 46, MarKeisha's Dad

#### TIME

Most of the action takes place at X Middle School as MarKeisha travels on a journey to learn more about healthy eating and exercise in the present (2006). The action ends inside of MarKeisha's favorite restaurant.

#### SETTING

Neighborhood in Atlanta, GA. We see what MarKeisha travels as goes to and from school and throughout the neighborhood.

## **Getting on Track**

### **Scene 1**

Practice for Tryouts (School Track)

Characters

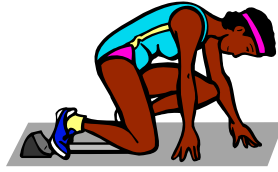
Narrator

Coach Lewis (Track Coach)

MarKeisha (6<sup>th</sup> grader at X Middle School)

Danielle (8<sup>th</sup> grader at X Middle School, 1<sup>st</sup> place track star in the state of Georgia, plans to run track in high school and earn a track scholarship to Clark Atlanta University)

Bryan (7<sup>th</sup> grader at X Middle School, track star)



Keisha can't stay on the track team being out of breath and slow. When Coach Lewis discovers that MarKeisha doesn't eat breakfast, she eats junkfood all of the time and she doesn't exercise he tells her she needs to figure out how to eat better and exercise more or she'll never make it back on the track team. Danielle and Bryan give Keisha some advice.

(Keisha is finishing her warm-up laps for track practice and enters the stage panting heavily)

Coach Lewis:

Why are you so out of breath? What's going on, Keisha?

MarKeisha:

I'm tired Coach. I didn't get much sleep because I stayed up all night watching my favorite TV shows and music videos! It's like I can't stop watching! The shows are so funny and I practice all the latest dances when I watch videos.

Coach Lewis:

Well you need to start getting in bed earlier so you can practice your running!!! How do you expect to win the 200 meter if you can't even run 40 yards without being out of breath. Have you forgotten our motto, MarKeisha?

MarKeisha:

Oh no Coach Lewis not the motto, I'm too tired!

Coach Lewis:

Let's hear MarKeisha, hit it!

(Coach Lewis put his hand to his ear and eggs Markeisha on)

(Markeisha drops to the floor to do push-ups as she calls out the motto to the tune of the ARMY song)

MarKeisha:

If you want to do your best, you've got to get proper rest! Eat right, play hard, that's the way, practice harder everyday! Sound off-eat right! Sound-off play hard! Sound off eat right-Play HARD!

(Markeisha collapses to the floor)

Coach Lewis:

You started out to be such a good runner! What happened???! It's like you've forgotten everything I taught you. You haven't been getting proper rest, you're out of breath...I mean goodness! Have you at least been eating right? What did you eat today?

MarKeisha:

Well um, I didn't have breakfast because I woke up late and I had to run for the school bus. I ate Flamin' Hot Cheetos and a Coke for lunch because I was rushing to finish my math homework...OH Coach, I'm sorry, I just haven't been myself lately.

Coach Lewis:

You sure haven't! You need to get back on track or you'll end up getting cut from the track team young lady. As a matter of fact, you need to learn more about taking care of your body and your health if you want to be on the track team, so until then-**you're cut!**

MarKeisha:

Cut from the team, **Oh-no!!!** Who's going to run the 200? You know that's my race, Coach! I'll do better, I promise, Coach Lewis.

Coach Lewis:

Yeah, I know you will!!! But you're still off the team until you can prove to me that you take your health and running track seriously. I'll give you two weeks! Until then I suggest you go and talk to Dani and Bryan and anyone else that can help you learn about how to eat right and stay fit. Maybe they can give you some help.

(Coach Lewis turns away and begins to assemble the team for practice.)

(Keisha walks away feeling disappointed about her performance on the track. After practice she decides to talk to Danielle and Bryan.)

MarKeisha:

Guess what y'all, Coach said I'm off the team until I learn more about eating right and staying fit. I guess I just figured that I could eat and drink whatever I wanted, and if I could get out here and run, then I was healthy, but now I can't keep up. I know I'm not getting enough rest and I'll do better, but can ya'll can help tell me how to eat right and stay in shape, please, so I can make it back on the team!

Dani:

We can help you out, Markeisha.

Bryan:

Yeah, how much are you paying?

Keisha:

Ha! ha. That's real funny, but I really do need you to help me. What do I need to do to stay in shape?

Danielle:

First of all, what do you eat?

Bryan:

Yeah, what kind of stuff do you eat during the day?

Keisha:

Well first of all I eat Flamin' Hot Cheetos, a honey bun, and Snickers almost everyday. Oh, and I gotta have at least 2 Cokes, and some Crunk Juice!

Bryan:

Man, no wonder you can't get enough rest!! That stuff will keep you up for days! And you said you eat it EVERYDAY! No wonder you can't keep up.

Danielle:

C'mon Bryan, let's help her out, she wants to do better. Now, MarKeisha, what do you eat for breakfast?

Keisha:

I don't really eat breakfast. I'm not usually that hungry in the morning and even if I am I usually get up in just enough time to catch the bus.

Danielle:

Well, see that's one thing you can change. You should eat breakfast every morning. It helps you start off the day right. Then you might not eat all of that junk during the day.

Bryan:

Yeah, breakfast is a very important meal, but you've got to do better with your **whole** diet!

Keisha:

Well, what should I eat? I mean how do I get started?

Bryan:

You can grab something to eat in the morning like strawberries, a banana, a snack bar or cereal with low fat milk. Or you can make a smoothie, it only takes like 5 minutes and you can drink it on your way out the door.

Danielle:

Yeah, and you should only eat junkfood some of the time. The rest of the food you eat should be nutritious so your body can be strong when you get out here to practice.

Byran: (sings to the tune of Laffy Taffy and does the Laffy Taffy)

Yeah girl, eat your fruit and veggies, your fruit and veggies.

Danielle:

In health class we learned that you need **5 or more servings of fruits and vegetables a day** to help your body stay strong. Think about the things you like, you know like oranges, bananas, and carrots. They have things like vitamin C to help your body fight off colds, and calcium to keep your bones strong.

Keisha:

Well, what's the best thing for me to drink?

Bryan:

You should drink a lot of water to keep your body hydrated. Instead of Coke and Crunk juice, you should drink 100% juice like apple juice or orange juice. That will help you get some servings of fruit.

Oh!

And when you're not practicing, you should exercise. You can jog home instead of riding the bus, run up and down the stairs, and do push-up, jumping jacks, and high knees, that will help get you in shape. Oh and you can dance, too. Like Lean Wit It, Rock Wit It! (Bryan and Danielle do the dance.)

Keisha:

Alright, so ya'll are telling me that dancing is exercise, too. 'Cause I love to dance!

Danielle:

Yeah girl, when you move your arms and your body, that's exercise.

MarKeisha:

Okay, show me that dance. (Danielle and Bryan teach MarKeisha Like Lean Wit It, Rock Wit It)

Alright, I get it!

Danielle:

Don't forget to keep up with your work at school too, Keisha.

Byran:

Yeah, we work out 4 days a week, so you've got to stay on top of your work.

Danielle:

Get as much practice as you can. If you keep working at it you might even get a track scholarship. That's what I want to do, I'm setting my sights on going to Clark Atlanta University, but I know I gotta' keep up with my work if I want to run.

Keisha:

Really? That's great, Clark Atlanta University, huh? What do you want to be?

Dani:

I'll probably do science and be a doctor and of course an Olympic Gold Medalist!

Keisha:

Alright. Thanks. I'll see y'all tomorrow. I'm going to start getting back on track!

Dani and Bryan:

Alright, bye.

Scene Ends.



## **Getting on Track**

### **Scene 2**

After-school Snack? (The Red Store)

Characters

Narrator

MarKeisha

Maia (MarKeisha's best friend)

J.R.(MarKeisha's younger brother)

The Red Store cashier



MarKeisha has it all wrong when it comes to eating and exercising! Usually everyday after school goes to the Little Red Store and picks up a snack. Then she walks about two blocks home. After she finishes her homework, she does her chores, watches videos and talks on the phone. Maia reminds MarKeisha about what Coach Lewis, Danielle, and Bryan told her to do, but she still thinks she can do it her way.

(MarKeisha and Maia go into the Little Red Store to pick up a snack.)

Maia:

Let's get some apples and crackers and uh, bottled water.

MarKeisha:

Girl, what are you talking about?? I'm about to have some Flamin Hot Cheetos, a honey bun and some Crunk Juice!

Maia:

But you know what they told you at track practice. Girl, if you keep eating like that you're gonna' blow up so big they'll have to roll you around the track!

(Maia turns to the cashier)

Cashier: What would you like, baby?

Maia:

We'll have 2 apples, a banana, and—(Keisha cuts her off)

MarKeisha:

Girl whatever! I want Flamin Hot Cheetos, a honey bun and some Crunk Juice!

Maia:

Girl, I can't believe you! You said you were going to do better!

Cashier: Better at what?

Maia: She just got kicked off the track team, and she's buying all that junk!

Cashier:

Oh well you definitely don't need all that junkfood! Here, an apple and some bottled water, that's what you need. I heard you used to win all of your races.

MarKeisha:

Yep and I was eating just what I wanted so I don't want an apple and some bottled water! Don't tell me what to buy, Maia, what do you know about eating healthy?

Cashier:

Well, I don't know about her, **but I know plenty**. I'm 35 years old and I've got diabetes, you know the sugar disease?

Maia:

Yeah, we learned about diabetes in health class, remember, Keisha. It's when your body can't handle all of the sugar you eat so you have to take a pill or get a shot, right.

Cashier:

Yeah that's right. I don't have to get a shot, but I do have to check my blood sugar by pricking my finger all day. (holds up her finger)

MarKeisha:

I'm not going to get diabetes because I have one soda and some flaming Hot Cheetos! Anyway, I'm too young to get diabetes, it's not my problem!

Cashier:

The problem is you kids want to eat this junk **EVERYDAY**, (picks up some junkfood) that's the **problem**. Diabetes is a **MAJOR** cause of so many health problems among African Americans. Even kids your age are showing up with it. I probably wouldn't have diabetes if I had been eating healthier and exercising when I was younger. I know you don't think it will happen to you because you're young, but the habits you start today will follow you tomorrow. Remember that, honey.

Maia:

So what's better, MarKeisha? The track team or your junkfood?

Keisha:

My junkfood! (turns her back on Maia)

**(J.R. enters the Red Store and overhears MarKeisha and Maia's conversation.)**

J.R.:

What did you buy, Keisha? It better be something healthy so you get back on the track team.

Keisha:

Dog man! How do know I got kicked off the team?!

J.R.:

News travels fast, I just went looking for you on the track and Coach Lewis told me.

Maia:

Well she doesn't seem to care because she got Flamin Hot Cheetos, a honey bun and some Crunk Juice!

Cashier:

I tried to give her an apple and some bottled water, too, but she got a little attitude! Guess she won't be on anybody's track team!

MarKeisha:

Look! I'm hungry can I just get my food so I can get out of here!

J.R.:

Keisha, you better get something healthy or I'll tell mama! Why don't you get the apple and a diet coke, so you have something healthy and something you like.

MarKeisha: I DON'T LIKE DIET COKE and I DON'T WANT NO APPLE!

Cashier:

We'll look around, baby. We have fruit, crackers, low-fat chocolate milk, and orange juice.

Keisha:

Fine! I'll take a banana, and some orange juice instead of soda and I'll get some crackers.

Maia: Now that sounds like somebody that wants to make the track team!

Cashier: Okay that's one banana, and some orange juice instead of soda, and some crackers.  
**(The Cashier winks at Maia.)**

That will be \$2.78.

Maia: Great, it's my treat!

J.R.: Oh, since she's treating, let me some orange juice, too, man.

Maia: Who said I was treating you?

Jared: Come on, Kayla!

Maia: Alright, alright.

Cashier: Okay here's your food and that's 1 extra dollar for the orange juice.

**(MarKeisha collects the food and hands J.R. his orange juice as Maia pays the cashier.)**

Keisha: Now can we get out of here and go eat.

Maia: Let's go.

Cashier:  
See you tomorrow!

Scene ends.

## Getting on Track

### Scene 3

What's Cookin'? (Big Mama's Kitchen)

Characters

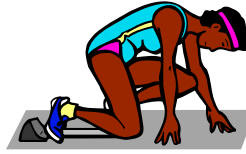
Narrator

Big Mama (MarKeisha's Grandma)

MarKeisha

J.R. (MarKeisha's younger brother)

Maia (MarKeisha's best friend)



MarKeisha races her little brother to her Big Mama's house and loses the race. She figures out that she got lots of work to do so she turns to her Grandma and her friends for help. MarKeisha asks Big Mama what it means to eat right? Grandma prepares a healthy meal for MarKeisha, Jared, and Maia in the form of a cooking show. She gives her tips on how to eat more nutritious foods to help her body grow and stay strong.

**Keisha and J.R. jog into Big Mama's house. Big Mama is placing some pots on the stove.)**

Big Mama:

**Hey, slow down**, you know I don't allow no running in the house! Come on in the kitchen, how y'all doing?

J.R.:

Hey Big Mama, I'm feeling great! I just beat Keisha in a race!

Big Mama:

You did dear! What honey?! MarKeisha, the track star, let you beat her in race!

MarKeisha:

Big Mama, I couldn't believe it! I mean, he's **NEVER** beaten me in race before! I must really be getting slower.

J.R.:

Yeah, that's probably why you got kicked off the track team (J.R. quickly covers his mouth)  
Oops!

Markeisha:

**Man, you got a big mouth!!!**

Big Mama:

Really Keisha, baby, you got kicked off the track team! (Big Mama begins to raise her voice) **It better not have a thing to do with you behavior or your grades** (Big Mama points a spoon towards Markeisha as she admonishes her) **I'm tired of y'all making my pressure**

**go up, now I have told you before if you want to do stuff outside of school, you've gotta behave and keep up with your schoolwork-**(pauses as Keisha interrupts)

Markeisha:

No, no it's not that, Big Mama.

Big Mama:

(Big Mama calms down; in a very sweet voice) Oh, well what seems to be the problem, sugar?

Keisha:

I just don't know how to be healthy. Everybody's telling me to eat right and exercise so I can make it back on the track team, but I don't really know how. Coach Lewis said I can't come back until I learn more about being healthy.

Big Mama:

Well baby, you don't just want to be healthy so you can make the track team, you want to be healthy for life. But don't you worry, Big Mama knows all about healthy eating. We'll have you back on that track team in no time!

Markeisha:

Really, Big Mama, can you teach me?

Big Mama:

**Child, you know I can!** See you want to fill your body up with the proper fluids, like water and 100% juice and not all that soda. And eat less of those greasy fried foods and junkfood and more fruits and vegetables. And get your exercise on! Now that will help you, just like my mama told me, long, long time ago. See I even exercise here the kitchen. Hand me those canned goods,

Keisha.

**(Big Mama picks up the canned goods.)**

**(Maia knocks on the door and enters Big Mama's house)**

Maia:

Hello Big Mama. What are you doing?

J.R.:

I thinks she's about to cook some corn.

Big Mama:

No, I'm not, I'm about to work out.

Maia:

Huh?

Big Mama:

See Baby, I'm just in here schoolin' y'all on how to stay healthy. Now see you can use these canned goods as weights (Big Mama begins to do bicep curls). How else you think Big Mama stays so strong?!

Markeisha.:

(picks up cans as does bicep curls) Wow, this really works!

Big Mama:

Well of course it does! Now, what else do you need to know.

J.R.

You're the best cook I know, Big Mama! Can you show us how to make a healthy snack?

Big Mama:

Okay, let's make a turkey roll up.

MarKeisha:

Is that healthy?

Big Mama:

Well of course it is baby! And you don't have to go to a fast food restaurant everytime you want a quick snack. See it's simple, (Big Mama begins to take items out of the refrigerator), I have some tortilla wraps, turkey, cheese, spinach, and salsa!

See you get protein for your muscles from the turkey, calcium for your bones from the cheese, and vitamins and minerals from the spinach.

Keisha:

Oooh! That's good Big Mama, 'cause Dani and Bryan told me I should have **5 servings of fruits and vegetables everyday**. I already had some orange juice and some apples. So if I eat some this that's **three servings**!

(The kids watch as Big Mama makes the turkey roll up)

Big Mama:

See just put a little turkey on the tortilla, add some cheese, cut up spinach and little salsa and...WALL-LA! You got a great healthy snack, go on, try it!

(Big Mama cuts the turkey roll up and each child eats a bit)

Keisha, Maia, and J.R.:

Hey, this really is good, Big Mama! Thanks!

Keisha:

Hey, I like this, but isn't it more expensive than fast food?

Maia:

Well, not really. You can keep making these until the ingredients run out, but if you eat fast food it's gone until you buy more. You might end up spending 4 or 5 dollars a day. With this recipe you might spend 5 dollars once and it last a lot longer.

Big Mama:

That's too true, baby, and anyway, I know you kids find a way to buy the stuff you want. You didn't think those shoes were too expensive, now did you?

**(phone rings)**

Hold on baby.

**(picks up phone)**

Hello, yeah I'll be down the church tonight, yeah, I'll bring some of my cabbage. Bye.

Alright, excuse me baby where were we? yeah, being healthy. Baby don't worry you'll be just fine. Remember your snacks should be nutritious. Have a turkey roll up and a banana as a snack instead of all that junkfood. Remember that and remember to eat your fruits and vegetables and you'll be sure to make that team baby. Now let's say grace and let's eat.

**(Everyone holds hands and bows their head)** Scene Ends.



## **Getting on Track**

### **Scene 4**

Work it Out! (X Middle School Gym)

Characters

Narrator

MarKeisha

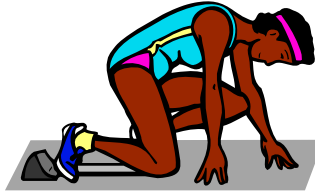
Maia

Charles (Hip Hop Dance Teacher)

Christa (Hip Hop Dance Team Member)

Jay (Hip Hop Dance Team Member)

Other Dancers



MarKeisha practices running a mile everyday on the track afterschool. However, MarKeisha wants to figure out some other fun ways to get her exercise. Since MarKeisha loves music and dancing, Maia convinces MarKeisha to come to hip-hop dance practice as good form of exercise. Some members of the dance team perform a dance for MarKeisha and they teach her how to do some dancing. MarKeisha has so much fun she decides she'll do hip hop dance class as another form of exercise and she decides to let Coach Lewis know that she's learned her lesson!

**(Keisha and Maia enter the school gym. There are some kids practicing a hip-hop dance while a group of students warm up)**

Maia:

Hi everybody! I brought my friend, Markeisha with me to learn a hip hop dance.

Keisha:

Hi everybody!

Charles:

How are you? My name is Charles. I'm the hip hop dance coach. We're happy to have you. Just come on in and find a spot, we'll help you learn the dance. We'll get started in about 10 minutes everyone's warming up now. So, do you like to dance.

Markeisha:

Yeah, but I never thought about it being good exercise.

Charles:

You want to exercise?!

Maia:

Yeah, she's trying to get in shape to make it back on the track team. I told her she'd probably like this.

Charles:

I know you'll like it, go ahead and introduce Markeisha to everyone, Maia.  
(Markeisha and Maia walk towards the other kids)

Maia:

Keisha, this is Christa and this is Jay. She's going to practice with us today. She wants to learn more about eating healthy and exercise so she can make it back on the track team.

Jay:

You're in the right place then, we have to be in shape to be able to perform. Dancing is a great form of exercise!

Christa:

Yeah, and sometimes we sing and rap while we dance. If you don't practice, you'll never be able to keep up.

Markeisha:

I love dancing so I think I can hang. I do a rap thing, too you know.

Jay:

You do, well let's hear your flow.

Markeisha:

You go first.

Jay:

Alright, what do you want me to rap about?

Markeisha:

Um, let's see, since you're so good make up a rap about healthy eating.

Jay:

Healthy eating! Okay, I can do that. Here we go:

(Jay begins to rap and the other kids form a circle around Markeisha, Maia, Christa and Jay and clap)

I eat a balanced diet like everyday and  
I feel so much better when I run and play,  
When I work up a sweat, I can feel my heart pumpin'  
movin' and groovin' to a beat that's bumpin',

Christa:

Wanna keep my body clean, don't want my food to be greasy,  
That's why fruits and veggies are off the heezy!  
Believe Me!

They keep you looking good inside and out,  
And that's what being healthy is all about!

Markeisha:

I said I'm eatin' good in the neighborhood and  
Making healthy choices like I know I should,  
Gotta cut the fat  
So I can my body good  
So I'll keep eatin' fruits and veggies like I know I should.  
I know eatin five a day is the key  
Hey Yo' I'm just doin' what's best for me!

(Everyone gives one another dap and Charles interrupts)

Charles:

Okay everybody places, let's get started dancing. 5,6,7,8....

Keisha:

Ok. We'll have to finish this later.

(Everyone gets in place.)

**(Music begins play. The dance begins)**

(The students dance off the stage, Markeisha is the last one off the stage)

Markeisha:

This is it right here. I know I can do it!

## Getting on Track

### Scene 5

Back on Track

Characters

Narrator

Coach Lewis

Keisha

Ms. Jackson (MarKeisha's Mama)

Mr. Jackson (MarKeisha's Dad)



MarKeisha starts off her day with breakfast. She is excited about her chance to make it back on the track team. Afterschool she does warm up exercises. She drinks water, the best fluid to hydrate herself, and heads to the track. She tells Coach Lewis about all the things she has learned to help her improve her performance on the track. Markeisha makes it back on the track team. MarKeisha and her family celebrate with a meal at MarKeisha's favorite restaurant.

**(Keisha starts off the day with a bowl of whole grain cereal and some low fat milk.)**

Mama:

It's good that you're having breakfast, Keisha. Here, have a glass of orange juice, too.

Keisha:

Yes M'am. Big Mama told me to drink more juice and eat more fruits and vegetables. So now I'm eating healthier.

Mama:

That's great sweetie, and orange is 100% juice.

Markeisha:

What do you mean mama?

Mama:

See look at the label.

(Markeisha turns the orange carton around.)

Mama:

See the ingredients are concentrated orange juice and water, not additives like **high fructose corn syrup** that you see in those orange drinks and sodas that you used to like. You've got to look at labels carefully to know about what you're eating.

Markeisha:

Okay Mama, I didn't even know the label was important. I never look at that.

Dad:

Yeah baby see the label tells how many calories are in the food, the serving size and see this Orange juice also has Vitamin C. Vitamin C helps the body fight against disease.

MarKeisha:

Okay. Wow's I've learned so much about being healthy. I'm done with breakfast and now I'm going to go warm up.

Mama:

Warm up for what, dear?

Keisha:

I going to let Coach Lewis know, I back on track now, I know I need to eat more fruits and vegetables and find fun way to exercise everyday.

Mama:

That's great. How long have you been practicing?

Keisha:

For the last 2 weeks.

Dad:

Good job, Keisha! Finally getting some good exercise. I'm so proud of you.

Keisha:

Well, today's the big day!

Mama:

Good for you. I wish I could come by the school, but I know you'll make the team. Call me when you're done and we can go to your favorite restaurant for dinner. Your brother is staying with Big Mama so it will just be me, you and daddy.

Dad:

I know you'll make it. I'll meet you two at the restaurant. And I challenge you to a race after we eat, Keisha.

Keisha:

Dad, I'd smoke you!

**(Dad laughs)**

Mama and Dad: Well good luck, sweetheart, do your best.

Keisha:

I will.

**(Keisha heads to school and runs her race afterschool.)**

Coach Lewis:

Good job, Keisha! I'm proud to tell you, you've made the track team!

Keisha:

Wow, thanks Coach! I talked to Dani and Bryan and my Big Mama. They gave me some great advice. I've been eating a healthy breakfast, and more fruits and vegetables. I've been drinking water and doing a lot better with my exercise, and having fun with it too.

Coach Lewis:

I'm really proud of you Keisha. Keep up the good work. Seems like you're livin' our motto, young lady? Let's hear it!

Keisha:

Oh no Coach, not the motto!

Coach Lewis:

Hit it!

Keisha:

If you want to do your best, you've got to get proper rest! Eat right, play hard, that's the way, practice harder everyday! Sound off-eat right! Sound-off play hard! Sound off eat right-Play **HARD!**

Coach Lewis:

I'll see you tomorrow right here on the track at 4 o'clock sharp.

Keisha:

Thanks Coach. I'll be there!

**(Keisha runs to grab her cell phone)**

Keisha:

Hey mama, I made the track team!!!

Mama:

I am VERY proud of you! I'll pick you up at 6 o'clock and we'll celebrate with a victory dinner.

**(Keisha and her parents arrive at Ryan's her favorite restaurant.)**

Keisha:

I know just what I'm going to get...a healthy meal. I'm going to have chicken, mashed potatoes, collard greens, corn, and 100% apple juice.

Scene Ends.

**Narrator:** By the time she is in the eighth grade, Keisha becomes the best runner on the track team. Although she started off with unhealthy habits, now she lives her life in a healthy way and she treats her body right. Keisha goes on to attend the University of Georgia on a track and field scholarship and she majors in Computer Science.

The End.

## **APPENDIX D**

### **The People vs. The Healthy 4 Life All-Stars**

**Setting: Courtroom in Atlanta, GA**

#### **Characters:**

**Courtroom Reporter: LaMonica Hoffman**

is a very sophisticated reporter who gives the people of Atlanta an eye into the courtroom trial. She is young and sassy. She is dressed in a nice suit and heels. She speaks very proper and loud.

**Bailiff: Stevie**

has been a part of the Atlanta courtroom system for 30 years. This is his last case to serve before his retirement in one week. He walks with a cane and talks real slow. It's hard for him to keep his breath after lots of movement. He wears a brown-button down shirt with a badge and brown pants. His sight is not well but he refuses to wear glasses so he squints and blinks constantly.

**Judge: Marshall Doogood**

is a prestigious judge in Atlanta. He is known for serving justice. He has people visit his courtroom from all over the world. He wears a judges' robe and is known for wearing a signature bow tie. Everybody loves him because he is always taking crooks off the street. He also sends smart students to the Doogood College Preparatory Academy free of charge. He loves to eat!

**Attorney 1: Rev. Attorney Johnny Al James Brown**

is an attorney with many talents. He is the pastor of Mt. Zion Holy Missionary Baptist Tabernacle and the owner of Rev. Al's Healthy Soul Food Joint. He is great at all of his jobs but sometimes he gets his roles a little mixed up. He wears a 3 piece suit and an apron to the courtroom. His hair is always impeccable and he looks a lot like James Brown.

**Attorney 2: Gracee Jo Little**

is an accomplished attorney from Wilacoochee, GA. She speaks slowly and with a southern drawl. She does everything by the book! She is very serious. Even though her name is "Little" everything about her is large. She wears large glasses, carries a large bag with all kinds of things in it, has large hips, has a large chest. She wears a big, old fashioned dress, She reminds you more of a typical grandmother than an attorney.

**AllStars:** Students at X Middle School who have come to plead their case and hope to convince the court that they acted in self-defense.



**The Trial of H4L**  
**The People vs. the Healthy 4 Life Allstars**

**LaMonica Hoffman:** Hello everyone, I am LaMonica Hoffman, Channel 1 News. We are here to be your resource as we find out the ruling of the People vs. the Healthy 4 Life Allstars. A group of twenty middle school students have been accused with conspiracy to murder health criminals that have robbed the lives of millions. We now take you live to the courtroom of Judge Marshall DooGood as this monumental case begins.

**Stevie:** All rise! The Honorable Judge Marshall DooGood presiding.

(Everyone on stage rises. The Judge clear his throat to gets Stevie's attention. Stevie moves forward to the audience to get them to stand.)

**Stevie:** I'm an old man. I retire in just one week, been here 29 years and 51 weeks! Yes Sir. Now I can't see well, but I can hear. Can you? (looks at the audience) I said all rise! (pauses for audience to stand) Ladies and Gentlemen of the courtroom it's the man with the plan, the one and only, The Honorable Judge Marshall DooGood presiding.

(Judge DooGood runs in waving his hands as if he is the star football player at an NFL game. Music and fanfare begin to play. Stevie claps and urges everyone to clap. Judge DooGood approaches the bench and takes a bow. He sits at the bench like it is a throne.)

**Judge DooGood:** Thank you, thank you. You may take your seats. We are here today to determine the fate of the Healthy 4 Life All Stars at X Middle School. They are charged with conspiracy to murder the following: Diabetes, Cancer, Heart Disease, High Blood Pressure, and Obesity. Counsel Brown, do your clients understand the charges that have been brought against them? Counsel Brown?

(pause of silence)

**LaMonica Hoffman:** Well, viewers as the case unfolds we meet our first monumental obstacle. Counsel Rev. Attorney Johnny Al James Brown is not here! This is MONUMENTAL ladies and gentlemen this is.....(cut off by the entrance of Atty Brown)

**Attorney Brown:** Yes, your honor, Rev. Attorney Johnny Al James Brown at your service! My clients promise to tell the truth and nothing but the truth so help em to heaven and they understand it better by and by. (Rev. Atty. Brown flies in very a 3 pc suit and an apron carrying a posterboard and a take out box in his hand.

**Judge DooGood:** Glad you could join us Mr. Brown. Counsel are you prepared to present your case?

**Attorney Brown:** Yes your honor and sorry I was late we just finished lunch down at the restaurant. And I brought you a little something. (Slides the take-out box on the judges' bench.)

**Attorney Little:** Objection! Counsel is bribing the judge!

**Judge DooGood:** Oh Goodie! I bet it's Fried Chicken! (Judge Doogood sniff the box and rips it open. He is deflated when he sees it's a salad.) A salad, how nice.

**Attorney Brown:** Yes sir, we are now Rev. Al's **Healthy** Soul Food Joint! We are gonna get our people off the road to heart disease and on the road to health.

**Judge DooGood:** Well, thank you Counsel Brown, please proceed!

**Attorney Brown:** Ladies and Gentlemen of the court today, we here today to determine the fate of the Healthy 4 Life All Stars at X Middle School. We are prepared today to prove beyond a shadow of a doubt that the Allstars have been acting in self-defense. (Atty Brown begins to preach) 'Cause you see if it doesn't fit....uhhh.....you must acquit. See it don't make sense it must be self-defense. Say it Loud! I'm Healthy and Proud!

**Attorney Little:** Objection! Attorney is supposed to be opening for the defense, not preachin' a sermon.

**Attorney Brown:** I'm just pleading my case your honor!

**Judge Doogood:** Counsel move forward, please.

**Attorney Little:**

Members of the Jury, we are here to teach these young people a lesson today. We cannot condone the type of behavior they have exhibited in trying to rid our community of diabetes, cancer, heart disease, high blood pressure, and obesity. We are all doing just fine with our diseases. We take our medications most of the time, we eat whatever we want, and we exercise every now and then. Now because of these, these, Healthy 4 Life Allstars, the drug companies are going out of business and I've been seeing people in our community out walking! And to top it all off Rev Al's Soul Food Joint is now serving oven-fried chicken. It's a crime and a shame! We must not let them go unpunished. We must charge them for their crime and give them their just do! If you ever want to see fried chicken again, I say charge them with Life!

**Judge DooGood:** Fried Chicken sure does sound good. Thank you, Counsel Little. Attorney Brown, Do you have any witnesses?

**Attorney Brown:** Yes, your honor. I would like to call Allstar 1 to the stand.

**Stevie:** Please raise your right hand and hold it over your heart. You promise to tell like it is and so forth and so on.

**Allstar 1:** I do.  
(Takes a seat on the bench)

**Attorney Brown:** Allstar 1, It is true that you and your friends are conspiring to rid our community of obesity, heart, disease, diabetes, high blood pressure and cancer?

**Allstar 1:** Yes, it's true!

**Attorney Brown:** Well how do you explain your behavior?

**Allstar 1:** Well the way we see it, we're doing the community a HUGE favor! Those diseases were killing us so we decided to fight back! We've only acted in self-defense!

**Attorney Brown:** Yes, you are! Our community is dying from the highest rates of obesity, heart disease, diabetes, and high blood pressure. And it's time for a change! It took this courageous group of children to lead us to change. They have influenced everyone in the community, including me! We shouldn't be putting them on trial, we should be rewarding them! Nothing further, your honor.

**Judge DooGood:** Your witness, Attorney Little.

**Attorney Little:** You say you acted in self defense, tell us, just what were these diseases doing to our community?

**Allstar 1:** They were making us overweight and unhealthy. They were ruining our quality of life and killing us too soon! If you exercised more and ate right you probably wouldn't be so cranky.

**Attorney Little:** Well, I never!

**Attorney Brown:** And you never will be healthy if you don't start making some changes right now! Judge Doogood, my clients are ready to present their case through Exhibits A-D. We will prove to you that being Healthy 4 Life is not a crime! It's a privilege.

Exhibit A: Poem      Exhibit B: Step      Exhibit C: Dance      Exhibit C: Rap

## APPENDIX E

### HEALTH POEM

#### Thick and Thin

I've always been a thick girl  
Never thin or petite  
I've always been a thick girl  
And oh yes I like to eat

But just because I'm thick it doesn't mean that I can't run  
I can dance, do jumping jacks, or some push-ups just for fun

I've always been a thick girl  
Don't know what it's like to be thin  
I just spend time lovin' me and the skin I'm in

See being thick, I've got full hips, chest, and thighs  
And no it's not from eating chicken, cakes, and apple pies

I eat things that keep me healthy like vegetables and fruits,  
You see thickness, it's a part of me from deep down in my roots  
So I won't apologize, but I also won't use it as an excuse  
I know I've got to work real hard to keep my body cute

So Thick or thin I'll take care of my body  
'Cause it's the only one I've got  
I know the my health is priceless  
And this is why I'm Hot!

Caree J. Jackson

## APPENDIX F

***What's Best 4 Me! Health Rap***  
**by**  
**Caree J. Jackson © 2003**

I said I'm eatin' good in the neighborhood and  
Making healthy choices like I know I should,  
Gotta cut the fat  
So I can my body good  
So I'll keep eatin' fruits and veggies like I know I should.  
I know eatin five a day is the key  
Hey Yo' I'm just doin' what's best for me!

I eat a balanced diet like everyday and  
I feel so much better when I run and play,  
When I work up a sweat, I can feel my heart pumpin'  
movin' and groovin' to a beat that's bumpin',  
Wanna keep my body clean, don't want my food to be greasy,  
That's why fruits and veggies are off the heezy!  
Believe Me!  
They keep you looking good inside and out,  
And that's what being healthy is all about!

I said I'm eatin' good in the neighborhood and  
Making healthy choices like I know I should,  
Gotta cut the fat  
So I can my body good  
So I'll keep eatin' fruits and veggies like I know I should.  
I know eatin five a day is the key  
Hey Yo' I'm just doin' what's best for me!

The family's in the kitchen cookin' up a good meal  
Chicken, corn on the cob, you know the deal,  
String beans and collard greens, that's what I'm lovin'  
And smells of that cornbread comin' out 'da oven  
Veggies tastin' so good- I've already had four, and  
that'll be five if I just have one more.  
Never knew eatin' five a day could be so easy  
And don't forget the fruit  
Now that's fa' sheezy!--  
Oh no-----! This meal is about to be over,  
So I'll wash it all down with some juice, not Soda!

Cause I'm eatin' good in the neighborhood and  
Making healthy choices like I know I should,  
Gotta cut the fat

So I can my body good  
So I'll keep eatin' fruits and veggies like I know I should.  
I know eatin five a day is the key  
Hey Yo' I'm just doin' what's best for me!

Eatin' good food helps me feed my mind,  
I'm keepin' up with my work 'cause I don't wanna get behind  
But I'm done with my books, it's time to hit the court now,  
I'll be shootin' and dunkin' like the best know how  
I can be whoever I want to be,  
I believe I can fly  
'cause I got so much energy!

I said I'm eatin' good in the neighborhood and  
Making healthy choices like I know I should,  
Gotta cut the fat  
So I can my body good  
So I'll keep eatin fruits and veggies like I know I should.  
I know eatin five a day is the key  
Hey Yo' I'm just doin' what's best for me!

HEY YO' I'M JUST DOIN' WHAT'S BEST FOR ME!

HEY YO' I'M JUST DOIN' WHAT'S BEST FOR ME!

## Appendix G

### DIET and DISEASE

#### WHO AM I?

| Word Bank |              |                       |       |
|-----------|--------------|-----------------------|-------|
| Fiber     | Protein      | Fruits and Vegetables | Sugar |
| Salt      | Hypertension | Heart                 |       |
| Fat       | Calcium      | Dairy Group           |       |



1) If you eat too much of me I will clog your arteries?

Who Am I? \_\_\_\_\_

I can lead to \_\_\_\_\_ disease?

2) I am a mineral that helps make your bones and teeth healthy and strong.

Who Am I? \_\_\_\_\_

What food group contains foods and drinks where you can find me? \_\_\_\_\_

3) If you eat too much of me, I may increase your blood pressure.

Who Am I? \_\_\_\_\_

Another name for high blood pressure is \_\_\_\_\_.

4) We are two food groups that help protect your body from disease, manage your weight, lower your blood pressure, lower your risk of diabetes, and lower your chances for some cancers.

Who are we?

\_\_\_\_\_ and \_\_\_\_\_

5) If you eat too much of me, I may increase your risk of diabetes.

Who am I? \_\_\_\_\_

6) I help to clean out your system and I am found in whole grains.

Who am I? \_\_\_\_\_

7) I help to build strong muscles and I am found in the Meat Group.

Who am I? \_\_\_\_\_

**Bonus:**

How often should children exercise? \_\_\_\_\_

How many minutes per day should children exercise? \_\_\_\_\_

Another name for heart disease is \_\_\_\_\_.



## "View It---Before You Chew It!!!"

Read the Nutrition Labels for the two snacks listed below.  
Use the Nutrition Labels to answer the questions about the snacks.

### Snack A

Nutrition Information  
Label

Serving Size.....1  
cup  
Calories.....360  
Fat.....15  
grams  
Sugar.....26  
grams



### Snack B

Nutrition Information  
Label

Serving Size.....1  
cup  
Calories.....200  
Fat.....5 grams  
Sugar.....6  
grams

1. How many grams of fat are in Snack A?  
\_\_\_\_\_ grams

2. How many grams of fat are in Snack B?  
\_\_\_\_\_ grams

3. Which snack is lowest in fat? (Check One)

Snack A \_\_\_\_\_ or Snack B \_\_\_\_\_

4. How many grams of sugar are in Snack A?  
\_\_\_\_\_ grams

5. How many grams of sugar are in Snack B?  
\_\_\_\_\_ grams

6. Which snack is lowest in sugar? (Check One)

Snack A \_\_\_\_\_ or Snack B \_\_\_\_\_

7. Which snack is each better for your health? (Check One)

Snack A \_\_\_\_\_ Snack B \_\_\_\_\_

## **GOOD CHOICES AT COMMON FAST FOOD RESTAURANTS**



|  |   |
|--|---|
| <p style="text-align: center;"><b>Burger King</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> BK Broiler Chicken Sandwich</li> <li><input type="checkbox"/> Frozen Yogurt</li> <li><input type="checkbox"/> Plain Hamburger</li> <li><input type="checkbox"/> Salads with low-fat dressings</li> </ul>   | <p style="text-align: center;"><b>KFC</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Chicken Wrap</li> <li><input type="checkbox"/> Baked Beans</li> <li><input type="checkbox"/> Corn on the Cob</li> <li><input type="checkbox"/> Mashed Potatoes w/ Gravy</li> <li><input type="checkbox"/> Skinless Roasted Chicken</li> </ul> |
| <p style="text-align: center;"><b>McDonald's</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Low-fat vanilla frozen yogurt</li> <li><input type="checkbox"/> Grilled chicken sandwich</li> <li><input type="checkbox"/> Grilled chicken snack wrap</li> <li><input type="checkbox"/> Plain Hamburger</li> <li><input type="checkbox"/> Fat Free Muffins</li> <li><input type="checkbox"/> Salads</li> <li><input type="checkbox"/> Fruit and Walnut Salad</li> <li><input type="checkbox"/> Fruit n'Yogurt Parfait</li> <li><input type="checkbox"/> Low fat Chocolate Milk</li> </ul> | <p style="text-align: center;"><b>Taco Bell</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Bean or Chicken Burrito</li> <li><input type="checkbox"/> Soft Chicken Taco</li> <li><input type="checkbox"/> Taco</li> <li><input type="checkbox"/> "Fresco" Style Foods</li> </ul>  |
| <p style="text-align: center;"><b>Wendy's</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Plain Baked Potato</li> <li><input type="checkbox"/> Small Chili</li> <li><input type="checkbox"/> Grilled Chicken Sandwich</li> <li><input type="checkbox"/> Plain Jr. Hamburger</li> <li><input type="checkbox"/> Fruit Cup</li> <li><input type="checkbox"/> Strawberry Yogurt</li> <li><input type="checkbox"/> Mandarin Oranges</li> <li><input type="checkbox"/> Salads</li> </ul>   | <p style="text-align: center;"><b>Your Favorite Fast Food Restaurant</b></p>  |

# GEORGIA

MAGAZINE

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THE UNIVERSITY OF GEORGIA



Healthy? That's fa sheezy!\*

PhD candidate Caree Jackson takes her song and dance about good nutrition to a south Atlanta public school

\*for sure

by Kate Carter

Discipline is being doled out in the front office of L.J. Price Middle School and Caree Jackson recognizes two of her students as she enters.

“Why are you here?” she asks a glum-faced boy perched on a chair.

“And why are you here?” she asks another student. “How long have you been here?”

It's 3:15 on a hot March afternoon at this Atlanta public school, four miles southeast of downtown. Jackson is a familiar figure, running an after-school program that uses acting, song and dance to teach students about health and nutrition. And, she hopes, helps them make wiser decisions and stay out of trouble.

There's clearly more work to be done.

"If I let it bum me out, I'd be bummed out all the time," Jackson says before heading to the cafeteria where her students are gathering. "I just want them to do better."

A Ph.D. candidate in UGA's College of Family and Consumer Sciences (FACS), Jackson communicates with students on their terms, and it works. Two days a week for ten weeks of the spring semester, she meets with 15 students, serving them sumptuous and healthy snacks of non-fat black bean burritos, low-fat pita pizza, turkey roll-ups, strawberries, grapes, fresh vegetables and smoothies.

"Students that wouldn't even eat grapes were trying things like yogurt and spinach," says Jackson, who received funding for the middle school program from the Atlanta Falcons Youth Foundation. "They understood that there is a relationship between the foods we eat and the diseases we develop."

Throughout the semester, Jackson and her students practice a play they will perform—with maximum enthusiasm—at the year-end Parent Teacher Association meeting. "Healthy 4 Life" is not a boring rendition of a Shakespeare play or a Broadway musical. Utterly original, it includes a skit, poems, a step routine, a hip-hop dance and a health rap.

A product of the Atlanta Public Schools, where her mother served as a principal, Jackson graduated from Howard University with a degree in biology. She had planned to go to medical school, but an intensive pre-medical program at the Medical College of Georgia showed her she "wasn't in love with" the medical profession. After spending hours in the hospital with her father, who was dying of cancer, she realized that was not where she wanted to spend her career.

"I decided I wanted to see people before they got too sick," Jackson says. "So if I could do prevention, that would be my thing."

She began her graduate coursework at UGA in 2002, and since then has tapped her creative and intellectual prowess to transform the lives of students, many of them from low-income families.

On that steamy afternoon in March, students line up in front of the 30-year-old Jackson, who, with her hip jeans and hair pulled back, looks like a cool big sister. The words to the rap roll off their tongues and the students deftly follow Jackson's dance moves.

To prepare the students for their big performance, Jackson takes them to the Alliance Theatre to see "Cuttin' Up," a play about African-American barbershops. The production fuels her students' dramatic leanings, and by the day of their performance, they are ready to wow the audience, a group of about 50 family members, teachers and administrators.

Eighth grader Rashunda Weaver, who brings the house down with her role as a gray-haired lady sporting a pillow-stuffed bottom, describes Jackson as somebody who makes people comfortable with themselves.

I've been trying to lose weight," Weaver says. "Every time we come here she gives us healthy food like bananas and juice. I'm just happy with myself, because if it weren't for her, I wouldn't have any confidence."

Rebecca Mullis, who runs the nutrition intervention laboratory at UGA, oversees students like Jackson who put their research to work in the community.

"What Caree sees is not the students' plight, but the opportunities that she can provide for these kids, in terms of health and quality of life," says Mullis, who also is head of Food and Nutrition at FACS.

Many of the kids need extra help. More than 90 percent of Price Middle School students qualify for free or reduced-price lunch, says Razikiwe Adisa, senior program coordinator for the Communities In Schools of Atlanta program at Price. For many students, transportation is limited, and their families tend to shop at corner grocery stores that stock processed junk food in lieu of fresh fruits and vegetables, Adisa says.

According to the National Institutes of Health, the number of

children who are overweight has doubled in the last two to three decades. Type 2 diabetes, heart disease, high blood pressure and strokes have risen precipitously. And nearly half of all children 8-16 years old watch at least three hours of television every day.

Thanks to Jackson, conditions like heart disease and high blood pressure are part of the weekly after-school dialogue at Price Middle School, and the students are spreading the gospel at home.

“I’ve started to eat baked food instead of fast food,” sixth-grader Shederrion Lewis says. “My daddy’s tried to do healthy stuff. My grandma’s making smoothies.”

Adisa praises Jackson for captivating students’ infamously wandering attention.

“It’s the pillar of the hip-hop piece and the spoken word stuff. That’s what gets their attention—not as much the main course, you know?” Adisa says. “You have to meet them where their interests lie and you attach the associated, real message to it.”

At that, Jackson is a pro.

While interning for a company called Food Play Productions, Jackson finished writing a play and program called “Lil’ Red Ridin’ Thru ’Da Hood.” Registered dietician and playwright Barbara Storper owns Food Play Productions and got Jackson’s permission to use the program in Philadelphia elementary schools. Now Jackson’s company, R.Y.T.H.I.M. (Reaching You Through Healthy Innovative Methods), is paid royalties for performances of the show, and she plans to expand the company to include more programs through which she can help families adopt healthy lifestyles.

“I just teach individuals how to make choices given the barriers they face,” Jackson says.

An hour before the May performance, Jackson spins her philosophy into reality. She stands in the middle of the auditorium offering tips on everything from tone of voice to dance moves to theatrical gestures.

“If it’s a part of the dance you don’t know, I don’t care. Just move!” she says. The students start over, with more energy.

“Good,” Jackson says, a smile spreading across her face.  
“Good.”

### **Want more?**

To learn more about the College of Family and Consumer Sciences, go to [www.fcs.uga.edu](http://www.fcs.uga.edu)

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**Kate Carter is a freelance writer in Atlanta.**



Caree Jackson, a Ph.D. candidate in family and consumer sciences, leads an after school program for Atlanta middle school students on fitness and health.