

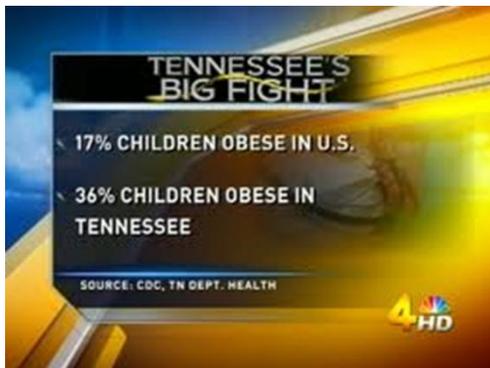
Obesity is a major health concern and a national health threat for both adults and children across the United States. The World Health Organization (WHO) defines overweight and obesity as “abnormal or excessive fat accumulation that presents a risk to an individual’s health (News Medical, 2012).” Over the past 20 years, the rates of obesity have increased and continue to rise. In the year 2000, no states had an obesity prevalence over 30 percent. In 2009, there were 9 states with an obesity prevalence of 30 percent or higher and in 2010 the number of states at this percentage level increased to 12 (CDC, 2012). The prevalence of obesity ranges from 21 percent in Colorado to 34 percent in Mississippi. Currently, no states have a prevalence below 20 percent and 36 states have a prevalence of 25 percent or more. The 12 states with an obesity prevalence of 30 percent or higher include: Alabama, Arkansas, Kentucky, Louisiana, Michigan, Mississippi, Missouri, Oklahoma, South Carolina, Tennessee, Texas and West Virginia (CDC, 2012). When subdivided into regions, the highest prevalence for obesity is in the South at 29.4 percent, the Midwest is at 28.7 percent, the prevalence in the Northeast is 24.9 percent and the West is at 24.1 percent. As of 2010, approximately 72.5 million U.S. adults are obese (MMWR, 2010). These obese conditions can lead to several major causes of death including stroke, heart disease, dyslipidemia, sleep apnea, liver disease, diabetes and cancer. In addition to these complications, obesity can accumulate outrageous medical costs. The annual medical costs of obesity can reach as high as \$147 billion dollars and researchers have found that obese individuals spend approximately \$1,429 more than a person of normal weight (MMWR, 2010).

Child obesity in America is increasing to outrageous levels as well. The levels of pediatric obesity have tripled to 15 percent since 1980 (Help Cure Child Obesity, 2011). Researchers have found that if you combine the amount of children in the country who are overweight and obese, the results indicate that 1/3rd of the children in the United States are

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carrying too much weight. What are the causes of these major weight differences in children? Many physicians believe that the main 2 reasons for these changes in adolescent obesity are 1). Not eating the right kinds of foods 2). Children in America are getting less exercise on a daily basis. Many researchers believe that sedentary lifestyles including less outdoor play and more TV viewing have increased the levels of childhood obesity as well. Four main explanations that are used to explain the connections between TV viewing and obesity include: 1). TV displaces interest in exercise and leisure behaviors, 2). There is an increase of food consumption while watching TV, 3). Advertisements lead to increased consumption of advertised foods and 4). Children influence their parents to purchase foods that are advertised (Caroli, Argentieri, Cardone and Masi, 2004).

The state of Tennessee is ranked 39 in the category of the healthiest states in the United States and by 2011 the state was ranked the 4th most obese state in America with the rate of obesity reaching 31.9 percent. In the past ten years, obesity in this state increased from 22.9 to 31.9 percent of adults. According to the 2010 US Census, the total population in Tennessee is 6,346,105 and when the overweight and obese populations are combined, the total percentage of people with increased life threatening conditions is 68.3 percent. This means that 4.3 million



individuals are at risk for serious health problems (Belly Fat Health News, 2012). In regards to minorities, obesity is more prevalent among non-Hispanic blacks at 40.9 percent than non-Hispanic whites at 30.5 percent and Hispanics at 30.3 percent. Nashville's Metro Health Department reports that 19 percent of Nashville's adult population is at risk for myriad diseases (heart disease, stroke hypertension).

In regards to childhood obesity, Tennessee ranks number 6 in the nation and almost 15 percent of Nashville’s public high school students are obese. In Tennessee, approximately 23.7 percent of the population is 18 years of age or younger. According to research conducted in 2007, 20.6 percent of adolescents between the ages of 10-17 were considered to be obese. This means that within the state, approximately 300,000 adolescents may possibly be at risk for more health complications due to obesity (Belly Fat Health News, 2012).

Methods

After reviewing all of the statistics regarding obesity and diabetes in the state of Tennessee, I decided that I wanted to create a project that would help to decrease the rates of childhood obesity in the Metropolitan Nashville area. When arriving at the center, I learned that Matthew Walker Comprehensive Health Center tried to start a pediatric obesity program a few years ago but the project wasn’t successful. My vision was to start a pediatric exercise/dance event to fight against the rise of obesity in the city of Nashville. In addition to promoting physical activity, I also wanted to have an educational segment where I would teach the children about being healthy, the importance of having a balance diet (using the My Foods Pyramid) and the importance of knowing how much of each food group they should have per day.

Based on the ideas that I had for the event, I created an agenda that would outline the timeframe and details for the program. The event would include a segment about the importance of healthy eating (including giving the children a healthy snack), a short

MATTHEW WALKER CHC PEDIATRIC DANCE PARTY AGENDA

WEDNESDAY, AUGUST 8TH, 2012

- | | |
|--|-------------|
| 1. Sign-In/Registration
(Ice Breaker: Name/Favorite Song) | 6:00-6:15PM |
| 2. Importance of Healthy Eating
(Veggie Sheet) | 6:15-6:50PM |
| 3. Video: "Importance of Exercise" | 6:50-7:00PM |
| 4. Dance Party! | 7:00-7:50PM |
| 5. Giveaways/Feedback Survey/Snack | 7:50-8:00PM |



Pilot Study to Decrease the Rates of Childhood Obesity at the Matthew Walker Comprehensive Health Center

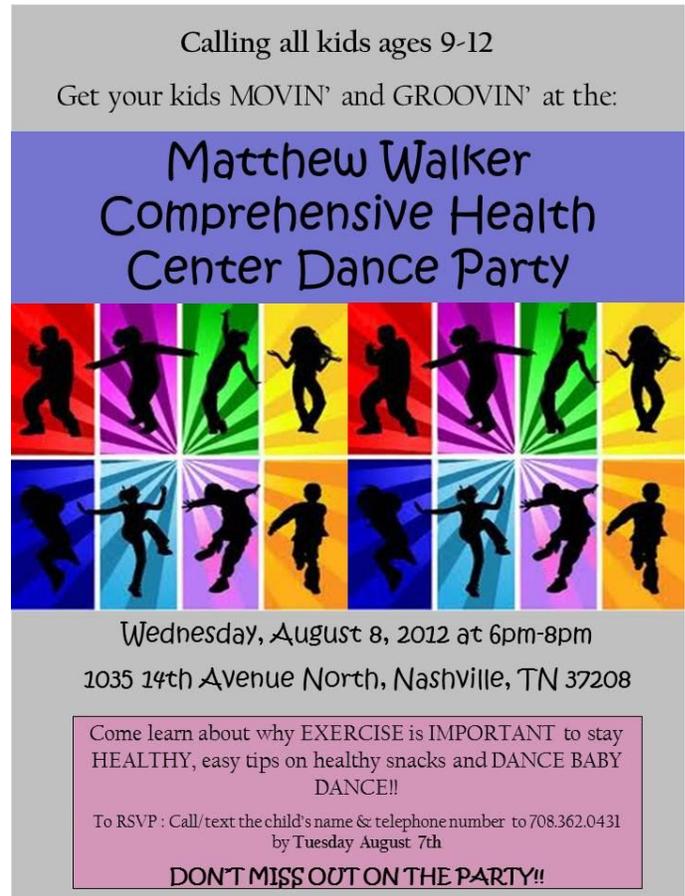
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video about the importance of exercise, a 50 minute segment of physical activity and a feedback survey to gauge whether this program has the potential to be sustained as a monthly or bimonthly event. For the “Importance of Healthy Eating” segment, I found a tool for the children to complete where they would list the fruits/vegetables they have eaten vs. the fruits/vegetables they would like to try (appendix 1). I thought it was important to give them a healthy snack during the session so they have a physical example of the types of foods that are considered to be “healthy.” As an incentive for coming to the event and participating, I also wanted to give the children gift bags in appreciation for their time and attention. In addition to the gift bags, I thought it was important to give the parents some information for them to take home as well. Educating the parents is crucial because they set a prime example for their children when it comes to guidance and motivation to do the right things. As a result, I decided to provide the parents with a one page document that explains how the parents can get their children to be more active (ex. engaging in sports). I also put together a “Healthy Snacks for Kids” recipe book with four easy recipes that the parents can make for their children on a daily basis.



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Originally, I wanted the event to be during the week in the mid-afternoon but I learned that the children were scheduled to go back to school on August 1st this year. Therefore, I knew that the event had to take place in the evening, giving children time to come home from school and time for parents to get home from work. I also needed to pick a day that worked best for reserving the room at the center and the best day for the physical activity instructor (Ms. Annette Smith) because I wanted an expert to conduct the exercising portion of the event. The date that I picked was Wednesday, August 8th from 6-8PM and I named the event the “Matthew Walker Dance Party” in order to attract the attention of the children. After solidifying my agenda, a date and location, I began to make flyers, create a phone script (appendix 2), modify consent forms, modify media release forms and query potential participants for the event. I retrieved a list of children that receive care at the Matthew Walker Health Center and created a print out of their names, date of birth, gender, race, physician/provider, BMI and telephone numbers. After retrieving the list, I began to target children with a BMI over 25. Childhood development is crucial and I feel that it is important to teach children the effects of obesity and certain diseases at an early age, so I originally chose my target population to be children ages 6-11. After doing some research on the materials that I would like to prepare and present during the event, I decided to go with the



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age bracket of 9-12 years of age. Two weeks before the event, using my phone script, I began to start calling the parents of the children to invite them to the event and give them some details on the purpose and goals of the program. I purposely called the households after 5:30PM in order to give parents time to get home from work. I got positive feedback from all of the parents that I called and I phoned approximately 40 households for the event. Out of the 40 phone calls, I received a lot of wrong numbers and voicemails but 20 parents committed to bringing their child/children to the event. Some patients turned down the invitation but it was solely due to time conflicts or previous engagements. Since this was a pilot study, I was very pleased with the amount of people who agreed to participate. Two days before the event, I gave each potential participant a phone call to remind them about the event. I left various voice messages but was able to verbally speak with the parents of 12 children who still planned on having their children come to the program.

After confirming the participants and finalizing my presentation to the children, I spoke with my faculty advisor about my ideas of presenting the event as if it were a real “party.” I wanted to decorate the room with balloons and table cloths and I decided that the healthy snack that I would prepare for them would be strawberry smoothies. With the lack of funding at the Matthew Walker Health Center, my faculty advisor, Dr. Carol Freund, donated \$40 in order to help make the event a total success. Matthew Walker donated gift bags from their “Back to School Bash” that included a toothbrush, toothpaste, shampoo, soap, granola bars, water bottles and books.

Results

On August 8th, 2012 at 6PM there were six kids that arrived with their parents to the “Matthew Walker Comprehensive Health Center Dance Party.” The program went as scheduled and the parents were asked to fill out a form giving their consent for the child to participate as

well as consent for pictures to be taken. During my presentation on the importance of healthy eating, the children were asked questions such as “What does it mean to be healthy?” and “Why is it important to be healthy?” The children were active participants and were eager to answer the questions throughout the entire presentation. The



children would shout out answers such as “To grow and be strong” and “To stop from getting diabetes.” I was amazed at the level of knowledge that these kids had at such a young age regarding the importance of a balanced diet and exercise. One of the children even knew the amount of exercise he is supposed to get per day and it was great to see that they were interested in learning more about their health!

After my presentation, the children watched a 4 minute You Tube clip called the "The Importance of Exercise" which discussed the different types of exercise that people can engage in as well as the importance of regular exercise. The healthy snack was also to them as they watched the video (strawberry smoothies). Once the video was over, it was time to dance! Ms. Annette Smith (the physical activity instructor at Matthew Walker Comprehensive Health Center) conducted some line dancing routines, modern dance moves as well as hula hooping, jump rope and playing a volleyball/catch game with the kids. In total, the kids participated in 50 minutes of physical activity.

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After the dance party was over, each kid was given a gift bag for attending and a feedback survey (appendix 3). The feedback surveys were given to gauge whether the kids enjoyed the event and whether they learned something about healthy eating and exercise. The four questions that were asked on the survey were 1). How did you like the Matthew Walker Dance Party (On a scale from 1-5 with 5 being the best), 2). Did you learn something about healthy eating and exercise (yes, maybe, no), 3). Did you like the smoothies (Super yuck, yuck, okay, yum, super yum), and 4). Would you come to this event again (yes, maybe, no)? After receiving all of the feedback from the surveys, all of the participants rated the event a five when asked did they like the Matthew Walker Dance Party. Every participant also said that they learned something from the event, that they liked the smoothies and that they would participate in this event again.

Conclusion and Discussion

The Matthew Walker Dance Party was a pilot study to help decrease the rates of childhood obesity in the Metropolitan Nashville area via education on healthy eating and physical activity (aerobics and modern dance routines). The state of Tennessee has one of the highest rates of childhood obesity and the prevalence continues to rise each year. There are many theories for why obesity continues to increase within the United States including sedentary habits such as video games, TV viewing and lack of exercise. In order to decrease this rise in the prevalence of obesity, I believe that local community health centers can implement programs that can teach children the importance of staying healthy and exercising regularly.

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Matthew Walker Comprehensive Health Center tried to start a pediatric obesity program a few years ago but the program wasn't successful. My passion was to jump start this program again by implementing the Matthew Walker Dance Party in hopes that the center can expand this event into a bigger initiative. After speaking with a lot of parents that receive care at Matthew Walker, I believe that the community would be excited for the Dance Party to be continued as a monthly or bimonthly event. For the future, I would suggest that more advertisement be put forth in order to publicize the event. Due to the time constraints, my strategy was to call parents/children who already receive care at the Matthew Walker Health Center. If Matthew Walker decides to expand this event, I would suggest more advertisement via flyers in the local libraries, schools, churches, radio stations, newspapers and recreation centers. A lot more individuals in the community can benefit from this program besides just the Matthew Walker patients. In order to acquire funding for events of this nature, there are federal and state grants that assist with childhood obesity programs. One funding option is the "Eat Well, Play More TN" grant which is a statewide nutrition and physical activity plan to reduce obesity and chronic disease in Tennessee by 2015. Under this grant, organizations can apply for funding up to \$20,000. Statistics and other research projects have shown that by encouraging children to exercise and stay active, the rates of childhood obesity could decrease. In addition to educating the children, it is important to educate the parents so that they will be able to guide their children into making the right decisions when it comes to their health. The Matthew Walker Health Center Dance party was a great success and I am thankful for the opportunity to help against the fight of obesity in the Nashville area.

Appendix 1

Name: _____



Steps to a Healthier You

My Fruit and Vegetable Goals

<p>Fruits</p> <p>Circle the names of the fruits you have eaten:</p> <p>mango papaya kiwifruit cantaloupe star fruit pineapple strawberry blueberry</p> <p>Other fruits I have eaten:</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>Write the name of a fruit you would like to try:</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>How will you eat this fruit? (Perhaps on cereal, as a snack, for dessert, with dinner, or on pancakes.)</p> <p>_____</p> <p>_____</p> <p>_____</p>	<p>Vegetables</p> <p>Circle the names of the vegetables you have eaten:</p> <p>spinach collard greens sweet potato broccoli jicama zucchini squash</p> <p>Other vegetables I have eaten:</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>Write the name of a vegetable you would like to try:</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>How will you eat this vegetable? (Perhaps for a snack, as a salad, with dip, or for lunch.)</p> <p>_____</p> <p>_____</p> <p>_____</p>
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Where and How

I will try these foods by: asking my parents to purchase them, helping my parents prepare these foods, choosing them from a restaurant menu, eating them from the school lunch menu, or eating them at a friend's house.

Signature _____ Date _____

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Appendix 2

Phone Script for the MWCHC Dance Party

Hello,

May I please speak to the parents of _____.

My name is Shannon Wilson and I'm calling from the Matthew Walker Comprehensive Health Center. We are hosting an event to teach kids ages 9-12 the importance of healthy eating and exercise. The event is called the "Matthew Walker Dance Party" and it will take place on Wednesday, August 8th from 6-8PM.

The kids will learn about healthy eating options and dance in order to promote physical activity. We will also be giving out healthy snacks and small giveaways for the children to take home. Will _____ be able to attend?

Registration/Sign-in will start promptly at 6PM. If you have any questions I can be reached on my cell phone at 708.362.0431.

Appendix 3

MATTHEW WALKER DANCE PARTY FEEDBACK SURVEY

1. How did you like the Matthew Walker Dance Party (On a scale from 1-5)?



1

2



3

4



5

2. Did you learn something about healthy eating and exercise? (Choose one option)



YES



MAYBE



NO

3. Did you like the smoothies? Circle one option only.



Super
Yuck



Yuck



Okay



Yum



Super
Yum

4. Would you come to this event again?



YES



MAYBE



NO

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