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Healthy Lives: Childhood Obesity in Monterey County

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Abstract

The rate of overweight children in Monterey county has continued to rise. At the rate we are going, by the year 2050, one in three people will have diabetes (American Diabetes Association, 2018). There are several contributing factors for obese children, for instance, socioeconomic status, environmental influences, and lack of physical activity. Children who are overweight or obese are at higher risk of facing serious health concerns, like heart disease and diabetes, which is the seventh leading cause of death in the United States (YMCA, 2019, Diabetes Statistics). They are also at a higher risk of suffering from emotional and psychological issues. Families with obese children also have the burden of dealing with expensive medical bills. The YMCA offers a variety of programs and services that focus on youth development, healthy living, and social responsibility. Youth Fit 4 Life (YF4L) is an evidence-based program within the YMCA, who shares a passion for improving the health of children by promoting healthy habits. The purpose of the program is to address childhood obesity and the psychological issues linked to it. After realizing the obstacles that staff were facing, it was important to create a website that provided additional support to deliver the program efficiently. The website provides videos and descriptions of the activities that must be conducted, in order to achieve the objectives of the program. After analyzing the survey results, staff who utilized the website, found it to be a valuable resource.

Keywords: Childhood obesity, prevention, evidence-based program, physical activity

Agency & Communities Served

The Central Coast, Young Men's Christian Association (YMCA), is part of a movement to help individuals and communities live happier and healthier lifestyles. Their mission is to “embrace the values of caring, honesty, respect, and responsibility with a mission to strengthen community through programs that develop youth, support healthy living and foster social responsibility,” (Central Coast YMCA, 2019). This movement is in over 120 countries, working with nearly 10,000 communities in the United States. The YMCA offers a variety of programs and services to help individuals and families living in the Santa Cruz, Monterey, and San Benito counties achieve their full potential in life. The YMCA is committed to help all people without discriminating. Their goal is to provide their programs and services to “everyone regardless of their ability, age, cultural background, ethnicity, faith, gender identity, ideology, income, national origin, race or sexual orientation,” (YMCA of the USA, Diversity & Inclusion, 2018).

The agency collaborates with different organizations to fulfill the needs of every person who is looking for a life changing experience. The programs' focus on youth development, healthy living, and/or social responsibility. Some of the programs include: clubs, fitness/sports, family time, and health and wellness which is the umbrella that Youth Fit 4 Life (YF4L) falls under. YF4L is a childhood obesity program adopted from Metro Atlanta for children ages five to twelve years old. Their goal is to improve children's health and promote healthy habits for better lifestyles. The YMCA partners with schools throughout the three counties to provide an after-school program that also incorporates the YF4L program. As mentioned in the YF4L philosophy, this program is also intended to prevent quality of life psychological issues related to obesity, such as, depression, anxiety, social isolation, and bullying. It is a 45-minute program that targets: cardiovascular fitness, strength, flexibility, healthy habits and behavioral life skills.

It is an evidence-based-program that will only show positive results if it is being conducted correctly.

Problem Description

The obesity rate of children in Monterey County is rising. Children who are overweight are at higher risk of becoming obese and diabetic as adults. Diabetes is the seventh leading cause of death in the United States (YMCA, 2019, Diabetes Statistics). Diabetes does not only affect the elder population, but it also has an impact on children. Until recently, diabetes in children and adolescents was thought of almost exclusively as type 1, but that thinking has changed. Type 2 diabetes causes blood glucose levels to rise higher than normal. Once an individual has type 2 diabetes, the body either does not make enough insulin or does not process it efficiently (American Diabetes Association, n.d.). According to American Diabetes Association (2018), by the year 2050, one in three people will have diabetes.

Even though children grow at different rates, calculating their body mass index (BMI) is a way to know if the child is underweight, healthy weight, overweight, or obese. According to U.S. Department of Health and Human Services, “BMI is a measure of body weight in ‘relation’ to height” (2016). Impact Monterey County Assessment (2015), states that 11% of children ages 0 to 12 were overweight in the county. Brehm and D’Alessio (2014), mentioned that ever since 1980 the prevalence of obesity tripled among youth, 2 through 19 years old from 5.5% to 16.9%. Child obesity rates were the highest among American Indian/Alaska Natives, followed by Latinos with 22.5%, then African Americans with 20.2% (U.S. Department of Health and Human Services, 2016) . This is concerning to Monterey County because it is constructed with 58.8% Hispanic or Latinos (United State Census Bureau, 2017). As explained by the U.S.

Census Bureau (2017), 33.5% of the county's residents consist of children and young adolescents, which is over a third of the residents.

Contributing Factors

There are several contributing factors for obese children, for instance, socioeconomic status, environmental influences, and lack of physical activity. According to *Obesity Across California Counties: A Closer Look* (2015), socioeconomic status is an enormous contributing factor. Counties with the highest obesity rates are the poorest. Monterey County has a 22% obesity rate with 14.7% individuals below poverty level, as stated by the United States Census Bureau (2017). Many children who live in poor communities are not regularly exposed to as many healthy foods, therefore often have trouble differentiating the healthy from the unhealthy ones. Also, the organic and healthier foods are much more expensive than fast food restaurants, which usually have extremely affordable prices. As a result of limited access to supermarkets and affordable healthy foods, families may buy "convenience foods that do not spoil quickly, such as frozen meals, crackers, cookies" (Mayo Clinic, 2018). According to the Center for Disease Control Prevention (2016), restricted access to affordable healthy foods is an enormous community factor affecting diets. They also mention that eating high-calorie and low nutrient foods and beverages are some behaviors that influence excess weight gain. This concept is very concerning, since that is what most affordable fast food restaurants contain.

Other major factors affecting overweight children are environmental influences. As highlighted by Mayo Clinic (2018), "people who live in lower income neighborhoods might not have access to a safe place to exercise". For instance, since there is a lot of shootings in Salinas, it might be more difficult for parents to allow their children to play outside with neighboring friends. Many strongly fear their child being victimized in a shooting. Also, if the child comes

from an overweight family, then they might have more access to high-calorie foods and physical activity might not be as encouraged or important (Mayo Clinic, 2018). Unfortunately, in many Hispanic homes, the loaded plates and second rounds of food are encouraged.

Another factor that is linked to overweight children is sedentary activity. According to Better Health Channel (2013), children spend an average of 2 ½ hours a day watching television, using computers and playing other electronic games. Children are now referring to these as their hobbies, rather than those that require physical activity. Many kids from this generation get the opportunity to use an electronic device as a reward for completing a task or behaving appropriately. Although, many of these kids also become desperate and eager to use these devices and lose interest in the important things in their life.

Consequences

Overweight and obese children face many tragic consequences. They are at higher risk of facing serious health concerns, psychological issues, and dealing with expensive medical bills. For instance, some of the serious health problems include diabetes, heart disease and strokes, liver disease, kidney disease, osteoarthritis, and certain types of cancers (U.S. Department of Health and Human Services, 2015). They are also at a higher risk of nerve damage, blindness, dental disease, and lower limb amputation if they grow up with diabetes (YMCA, Diabetes Statistics, 2019). Children who are overweight or obese are also at a higher risk to suffer from emotional and psychological issues. The Centers for Disease Control and Prevention (CDC) (2016), identified the following issues: anxiety, depression, low self-esteem, lower reported quality of life, social isolation, stigma, and bullying. As if bullying in schools was not enough, children are now getting bullied through social media. Many children who are constantly teased and tormented become emotionally unable to socialize with others. They live in fear and grow up

feeling incompetent to society, especially if their issues are not acknowledged or discussed in a healthy environment. Being overweight can also make it difficult for children to succeed in extracurricular activities that may involve running, jumping, and competing against other children their age. This can also influence teasing and incompetency.

Children growing up overweight will need many more doctor visits than the ordinary child, which can result in missing days from school, work or other events. Since low-income families are more likely to suffer from diabetic and overweight illnesses, they will be investing the money they might desperately need into doctor visits and medications. Otherwise, their insurance will also be wasting money on illnesses that can be prevented. According to the YMCA (2019), medical expenses for diabetic individuals are 2.3 times greater than those without diabetes. In 2017, the total cost of diagnosed diabetes in the United States was \$327 billion, with \$237 billion for direct medical costs and \$90 billion in reduced productivity (American Diabetes Association, 2018). Therefore, something must be done to increase preventative services for children at risk of being overweight.

Problem Model

Contributing Factors	Problem	Consequences
Socioeconomic status	There rate of overweight children in Monterey county has continued to rise	Serious health problems
Environmental factors		Emotional and psychological issues
Lack of physical activities		Higher medical expenses

Improving the Delivery of Healthy Habits Curriculum to Children

Project Purpose

Even though YF4L is an amazing program because it gives all participating children the opportunity to complete their daily physical activity and learn about important health and behavioral topics, there can still be a few improvements. Currently, it is rare for new staff to conduct YF4L because many of them have not attended the training, therefore have zero knowledge about it. That is the reason why this project is extremely important. After realizing the obstacles that staff were facing, it was important to create a website that provided additional support to conduct the program efficiently. It is important that the website has clarity and is easily accessible to all staff. The purpose is to provide new and returning staff the necessary tools to properly conduct the YF4L program. There is constantly new hires, due to high turnover rates, therefore, implementing a performance guide to properly serve the community is ideal. Staff would not have to wait until the annual training to learn and understand the program, instead they can review the website whenever they need clarification. New staff would have the opportunity to watch the activities and observe how they are conducted, in order to perform them accurately.

There are thousands of diverse communities around us. Some children are exposed to dangerous communities due to their socioeconomic status, while others choose to play video games rather than perform any physical activities. Childhood experiences set the foundation for their future beliefs, values, and attitudes. The environment is extremely valuable to children. Some children are not allowed to play outside their home because their parents fear for their lives and safety, therefore they may grow up with that mentality. Those who prefer playing video games over spending the day outside, will also grow into that system, especially with the rate technology is advancing. That is why children attending and participating in the YF4L program,

are placed with an advantage. They are encouraged to have fun with peers, while getting their exercise for the day, as well as learning about health and behavioral topics.

The capstone project is expected to target two of the contributing factors, which are lack of physical activity and environmental factors. The website was created for all staff to have the opportunity to fully participate. Providing these accessible videos, reduces the time staff spend trying to visualize the activities after rereading the steps from the YF4L manual. It will also give staff the confidence necessary to perform the activities correctly, which will encourage children to live healthier lifestyles.

Project Justification

Since YF4L is an evidence-based program, there can only be positive results if the program is being conducted accurately. According to Hendricks (2011), “about three out of four children ages 5 to 10 get less than one hour of physical activity daily.” If the program is administered correctly, children will be accomplishing most of their daily physical activity while having fun and learning about the importance of being healthy. The surveys completed by staff will validate the efficiency of the YF4L website.

Project Implementation

Since Youth Fit 4 Life (YF4L) is administered by YMCA staff, they are required to attend a six-hour training that only takes place twice a year. On February 2019, a group of new staff attended the YF4L training at the Salinas YMCA corporation. During the training, the Director of Healthy Living explained the intentions for recording them while participating in the activities. The videos are intended to be accessible to all YMCA staff whenever they need clarity on the activities, especially new staff that may need to refer to them as guidance. Since the

YMCA is constantly hiring new staff, they will now be able to refer to the website for clarity and reassurance.

During the website designing process, outside sources were contacted in order to produce a website that was simple to navigate and understand. It was important for the program, that the website had clarity and was easily accessible to all staff. The website consists of the YF4L program layout and description of the five different major sections. Each section has videos of the activities being conducted as well as a brief description below each one. The interns accommodated their schedules to visit several YMCA sites in the Monterey county to directly share the website and survey with each individual staff. Most of the participating staff were able to navigate the website and respond to the survey questions. A detailed plan of primary activities and implementation dates can be found in the Scope of Work Appendix A.

Expected Outcomes & Assessment Plan

Implementing this project will encourage healthy habits and overall engagement. Providing all YMCA staff with resources to properly conduct the YF4L program is beneficial to both staff and children. Staff will have more knowledge on the proper way of conducting the program, even if they did not have the opportunity to attend the YF4L six hour training. The staff will also be more prepared before leading the activities, which can improve their engagement and enthusiasm during the activities. Children will also benefit from the website because they will be doing the activities correctly, which means they will be accomplishing the expected amount of physical activity daily. This will guide them towards living healthier lifestyles.

The website is intended to increase the implementation of YF4L, which is expected to improve children's health. In order to measure the effectiveness of the website, a six question survey was created. At the bottom of the survey there was a section for comments and

suggestions, which can be used to make future improvements to the website. The staff were expected to have access to the website for several weeks before responding to the survey, in order to respond to all questions accurately. The expected outcomes of the surveys administered in the five different sites around the Monterey county, were that at least 90 percent of the respondents found that the website helped them implement the program. Another expected outcome would be that all participating staff found the website easy to navigate.

Project Results

Since YF4L is an evidence based program, it requires data collection. Because of the miscommunication, the Director of Healthy Living was not able to send the website to all staff, therefore the interns visited each site to give them a brief overview of the projects' intentions. After recording each of the staff email, they had the opportunity to view the website and respond to the survey. Although, the staff were expected to have access to the website for several weeks before completing the survey, they were encouraged to browse through it and respond to the questions as truthfully as possible. Even though it was not ideal for the staff to respond to the surveys with the limited time they had, it was much more reliable to meet with them personally and explain the project.

After analyzing the survey answers, the website appeared to be useful to eleven out of twelve participants. This can be viewed in Figure 1 below. The other participant responded with a 'Maybe', this could have been due to the limited time they had to get familiar with the website. The survey also demonstrated that the website was in between easy and very easy to navigate among all respondents, which proves that the expected outcomes were achieved. This can be found in Figure 2. The fact that they had limited time to navigate the website did not interfere with that response since the simplicity of it can be judged rapidly. The survey also illustrates that

the website created a positive impact on the implementation of the program, which also achieves the expected outcomes. This can be seen in Figure 3.

Figure 1

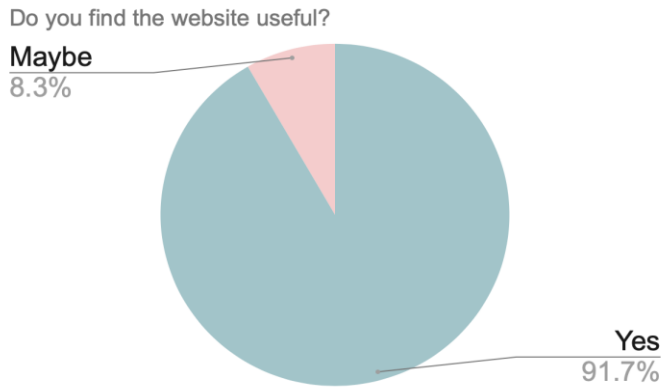


Figure 2

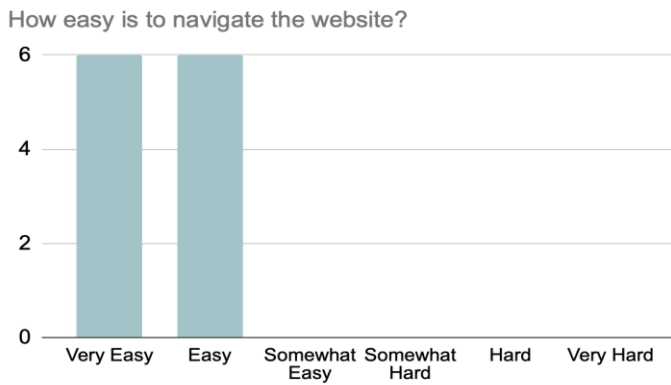
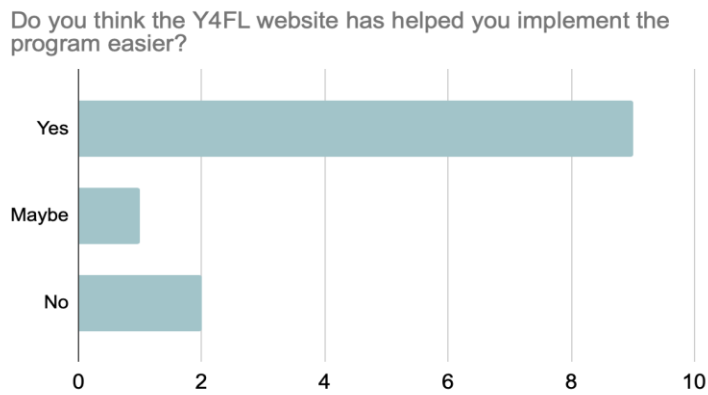


Figure 3



Conclusion & Recommendations

Overall, the project turned out to be a useful source for the YMCA staff that conduct the YF4L program. Therefore, the Central Coast YMCA should continue using the website in order to support the new and confused staff. As illustrated in Figure 3 above, most of the respondents found that the website has helped them implement the program easier. The more clarity staff have about the activities that must be conducted, the higher chance they will actually run the program on a daily basis. If staff run the program correctly, then they will be participating in the movement to end childhood obesity. They will also be expected to conduct the program even though they have not attended the training, since they will have a basic knowledge of the program through the manual each site receives, and the website created.

One recommendation would be for the staff to do a brief weekly report to the Director of Healthy Living, stating the things that worked well while performing the program as well as the challenging ones. That information can be used while administering the annual trainings by spending more time in the most challenging sections, and less time on things that seem to work well. The weekly reports can also be used to hold staff accountable for conducting the program.

According to the surveys, staff commented about being able to view the website easier on their phone which is ideal since most of the staff will access it while being on the go. Now that the Director of Healthy Living has administrative access to the website, he will be able to make improvements. He can expand on certain sections to give viewers more information on the health problem. For instance, there can be a section about the rising diabetes rates among children, in order to motivate staff to be part of the children's life changing experience. Furthermore, the website can continue to evolve by making changes based on the weekly reports about the

YF4Ls' successes and challenges. Along the road, the YF4L website can expand to the other counties that are also expected to conduct the program.

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Appendix A:**Scope of Work**

Activities	Assigned to	Timeline/Deadlines
Conducted the second training for YF4L	Intern, Mentor & Staff	February 16, 2019
Record the videos	Interns	February 16, 2019
Hand out photo release form	Mentor & Staff	February 16, 2019
Research about the outcomes of being physically active in relationship with obesity	Interns	March 7, 2019
Organize information for the YF4L website	Interns & Mentor	August 15, 2019
Set up meetings with my mentor to discuss ideas to start developing the website	Interns & Mentor	August 20, 2019
Upload and edit videos onto computer	Interns	August 27, 2019
Make YF4L youtube channel	Interns	September 4, 2019
Seek outside sources to assist with the website	Interns	September 20-30, 2019
Organize website layout	Interns	October 8,2019

Create surveys for staff about the effectiveness of the website	Interns	October 10, 2019
Make sure we are able to access website from any device	Interns	October 12, 2019
Introduce website to mentor and let him navigate it	Interns & Mentor	October 15, 2019
Launch YF4L website	Interns	October 17, 2019
Visit different sites in the Monterey county to survey the staff	Interns	November 14-21, 2019
Analyze survey data	Interns	November 25-29, 2019
Report results to mentor	Interns & Mentor	December 2, 2019